

# PCT

## THE INTERNATIONAL PATENT SYSTEM >> TRENDS AND ANALYSIS

Quarterly Statistics Report

Jan.-March **2009**



WORLD  
INTELLECTUAL  
PROPERTY  
ORGANIZATION

## FOREWORD

The aim of this report is to provide users with the latest available statistics of PCT international applications. This report includes PCT applications statistics and a core set of indicators to provide information on the latest trends in PCT filings. The data used in this document, along with longer time series, are available for download from the PCT statistics website:

[www.wipo.int/ipstats/en/statistics/pct](http://www.wipo.int/ipstats/en/statistics/pct)

Statistics reported in this document are based on:

- PCT international applications: Refer to patent applications filed under the Patent Cooperation Treaty (PCT). PCT filings and PCT applications are used interchangeably to refer to PCT international applications.
- The statistics include only the international phase of the PCT procedure (i.e. they do not include the national/regional phase statistics).
- Counts are based on either the international filing date or the publication date. The selection of the reference date depends on the indicator and what the indicator attempts to measure.
- The statistics reported here cover the most recent quarters and yearly totals. Quarterly and yearly statistics from 2000 onwards are available for download from the PCT statistics web site. Statistics for year 2008-09 are provisional and incomplete.

### Useful links

PCT Statistics: PCT monthly, quarterly and yearly statistics - [www.wipo.int/ipstats/en/statistics/pct/](http://www.wipo.int/ipstats/en/statistics/pct/)

WIPO Industrial Property Statistics: Statistics on patents, utility models, PCT, trademarks, industrial designs, plant varieties and microorganisms - [www.wipo.int/ipstats/en/](http://www.wipo.int/ipstats/en/)

PATENTSCOPE<sup>®</sup>: WIPO's gateway to patent services and activities – [www.wipo.int/patentscope/en/](http://www.wipo.int/patentscope/en/)

PCT Resources - <http://www.wipo.int/pct/en/>

Contact: [ipstats.mail@wipo.int](mailto:ipstats.mail@wipo.int)

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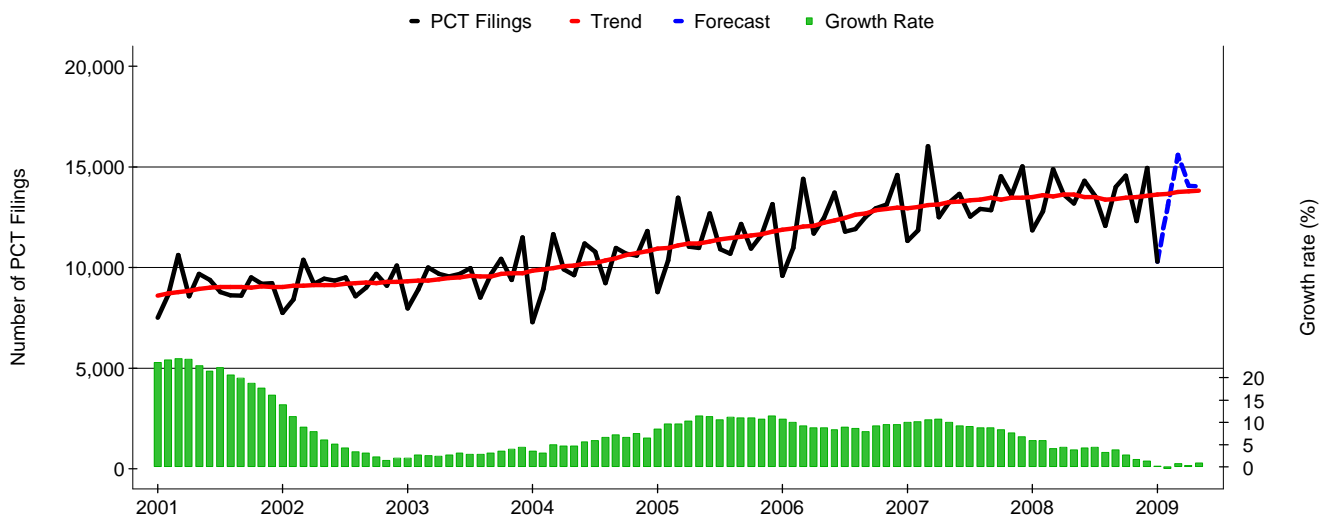
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## Trends in PCT Filings

Figure 1: Trends in PCT Filings



Source: WIPO Statistics Database

Note: 2009 data are provisional and incomplete. The growth rate is the annualized growth rate based on the trend line. Counts are based on the international filing date.

### Trends in PCT Filings

Source: WIPO Statistics Database, April 2009

Note: 2009 data are provisional and incomplete. The growth rate is the annualized growth rate based on the trend line. Counts are based on the international filing date.

#### Number of PCT Filings

| Year            | Month  |        |        |        |        |        |        |        |        |        |        |        | Total   |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
|                 | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     | 12     |         |
| 2000            | 5,525  | 6,694  | 8,573  | 7,150  | 8,184  | 8,356  | 7,243  | 7,850  | 7,863  | 8,455  | 8,409  | 8,936  | 93,238  |
| 2001            | 7,493  | 8,654  | 10,615 | 8,554  | 9,684  | 9,368  | 8,769  | 8,637  | 8,583  | 9,490  | 9,176  | 9,207  | 108,230 |
| 2002            | 7,745  | 8,392  | 10,382 | 9,183  | 9,449  | 9,340  | 9,487  | 8,560  | 9,001  | 9,682  | 9,091  | 10,081 | 110,393 |
| 2003            | 7,971  | 8,895  | 9,981  | 9,685  | 9,563  | 9,672  | 9,953  | 8,511  | 9,680  | 10,433 | 9,371  | 11,489 | 115,204 |
| 2004            | 7,280  | 8,926  | 11,653 | 9,902  | 9,620  | 11,178 | 10,789 | 9,220  | 10,967 | 10,697 | 10,595 | 11,805 | 122,632 |
| 2005            | 8,790  | 10,340 | 13,465 | 11,023 | 10,956 | 12,692 | 10,900 | 10,699 | 12,159 | 10,942 | 11,623 | 13,163 | 136,752 |
| 2006            | 9,592  | 10,958 | 14,393 | 11,679 | 12,466 | 13,722 | 11,774 | 11,902 | 12,527 | 12,930 | 13,122 | 14,592 | 149,657 |
| 2007            | 11,300 | 11,844 | 16,022 | 12,486 | 13,198 | 13,648 | 12,534 | 12,914 | 12,825 | 14,537 | 13,579 | 15,034 | 159,921 |
| 2008            | 11,824 | 12,786 | 14,876 | 13,634 | 13,181 | 14,295 | 13,567 | 12,048 | 13,984 | 14,543 | 12,319 | 14,925 | 161,982 |
| 2009 (to date)  | 10,263 |        |        |        |        |        |        |        |        |        |        |        | 10,263  |
| 2009 (Forecast) |        | 13,083 | 15,582 | 14,070 |        |        |        |        |        |        |        |        |         |

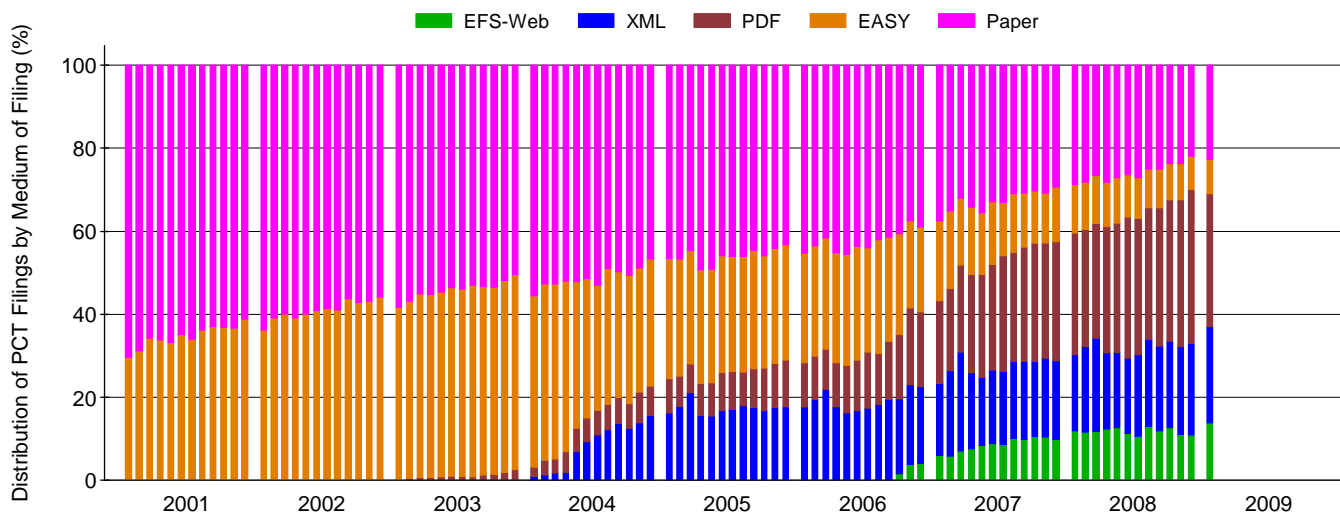
#### Annualized Growth Rate of PCT Filings (based on trend line)

| Year            | Month |      |      |      |      |      |      |      |      |      |      |      | Total |
|-----------------|-------|------|------|------|------|------|------|------|------|------|------|------|-------|
|                 | 1     | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   |       |
| 2000            | 34.0  | 28.3 | 15.4 | 16.0 | 18.2 | 18.0 | 17.3 | 20.3 | 20.2 | 21.4 | 22.1 | 22.1 | 22.1  |
| 2001            | 23.5  | 23.9 | 24.2 | 24.2 | 22.8 | 21.5 | 22.3 | 20.6 | 19.9 | 18.7 | 17.7 | 16.1 | 16.1  |
| 2002            | 13.9  | 11.4 | 8.8  | 8.0  | 6.1  | 5.1  | 4.2  | 3.4  | 3.1  | 2.3  | 1.4  | 2.0  | 2.0   |
| 2003            | 2.0   | 2.7  | 2.5  | 2.4  | 2.7  | 3.1  | 2.8  | 2.8  | 3.1  | 3.6  | 3.9  | 4.4  | 4.4   |
| 2004            | 3.5   | 3.1  | 5.0  | 4.7  | 4.6  | 5.7  | 6.0  | 6.7  | 7.2  | 6.7  | 7.5  | 6.4  | 6.4   |
| 2005            | 8.4   | 9.6  | 9.6  | 10.4 | 11.4 | 11.3 | 10.6 | 11.2 | 11.0 | 11.0 | 10.7 | 11.5 | 11.5  |
| 2006            | 10.8  | 10.0 | 9.2  | 8.8  | 8.8  | 8.3  | 8.9  | 8.6  | 7.9  | 9.2  | 9.5  | 9.4  | 9.4   |
| 2007            | 10.0  | 10.2 | 10.6 | 10.7 | 10.0 | 9.2  | 9.0  | 8.8  | 8.8  | 8.4  | 7.6  | 6.9  | 6.9   |
| 2008            | 6.0   | 6.0  | 4.1  | 4.3  | 3.8  | 4.3  | 4.5  | 3.2  | 3.8  | 2.7  | 1.6  | 1.3  | 1.3   |
| 2009 (to date)  | 0.0   |      |      |      |      |      |      |      |      |      |      |      |       |
| 2009 (Forecast) |       | -0.4 | 0.7  | 0.3  |      |      |      |      |      |      |      |      |       |

- In 2008, 161,982 PCT international patent applications were filed under the Patent Cooperation Treaty (PCT), representing a 1.3% increase from the previous year. The latest available data show that the number of PCT filings in the first quarter of 2009 amounted to 10,263.
- The annualized growth rate of PCT filings shows a slowdown in monthly PCT filings for the most recent months (figure 1)
- There has been a continuous increase in the share of PCT filings submitted in electronic format (PDF, XML and EFS-Web). In January 2009, 69% of total PCT filings were submitted in electronic format (figure 2). PDF (32.1%) is the most commonly used format for PCT filings, followed by XML (23.2%) and Paper (22.9%).

# PCT Filings by Medium of Filing

## Figure 2: PCT Filings by Medium of Filing



Source: WIPO Statistics Database

Note: 2009 data are provisional and incomplete. Counts are based on the international filing date. EASY (Electronic Application System) and EFS-Web (Electronic Filing System).

### Trends in PCT Filings by Medium of Filing (Paper, EASY, PDF, XML and EFS-Web)

Source: WIPO Statistics Database, April 2009

Note: 2009 data are provisional and incomplete. Counts are based on the international filing date. EASY (Electronic Application System) and EFS-Web (Electronic Filing System).

|      |       | Number of PCT Filings by Medium of Filing |        |        |        |        |         | Share of PCT filings by Medium of Filing (%) |      |      |      |         |
|------|-------|---|--------|--------|--------|--------|---------|--|------|------|------|---------|
| Year | Month | Total                                     | Paper  | EASY   | PDF    | XML    | EFS-Web | Paper  | EASY | PDF  | XML  | EFS-Web |
| 2004 | -     | 122,632                                   | 62,693 | 42,599 | 6,726  | 10,614 |         | 51.1   | 34.7 | 5.5  | 8.7  |         |
| 2005 | -     | 136,752                                   | 62,917 | 38,057 | 12,133 | 23,645 |         | 46.0   | 27.8 | 8.9  | 17.3 |         |
| 2006 | -     | 149,657                                   | 63,435 | 37,736 | 19,745 | 27,488 | 1,253   | 42.4   | 25.2 | 13.2 | 18.4 | 0.8     |
| 2007 | -     | 159,921                                   | 52,229 | 23,566 | 40,259 | 30,204 | 13,663  | 32.7   | 14.7 | 25.2 | 18.9 | 8.5     |
| 2008 | -     | 161,982                                   | 42,104 | 16,153 | 52,110 | 32,699 | 18,916  | 26.0   | 10.0 | 32.2 | 20.2 | 11.7    |
| 2009 | -     | 10,263                                    | 2,350  | 833    | 3,292  | 2,377  | 1,411   | 22.9   | 8.1  | 32.1 | 23.2 | 13.7    |
| Year | Month | Total                                     | Paper  | EASY   | PDF    | XML    | EFS-Web | Paper  | EASY | PDF  | XML  | EFS-Web |
| 2006 | 3     | 14,393                                    | 6,009  | 3,861  | 1,400  | 3,123  |         | 41.7   | 26.8 | 9.7  | 21.7 |         |
| 2006 | 4     | 11,679                                    | 5,282  | 3,108  | 1,226  | 2,063  |         | 45.2   | 26.6 | 10.5 | 17.7 |         |
| 2006 | 5     | 12,466                                    | 5,691  | 3,337  | 1,435  | 2,003  |         | 45.7   | 26.8 | 11.5 | 16.1 |         |
| 2006 | 6     | 13,722                                    | 6,009  | 3,744  | 1,680  | 2,289  |         | 43.8   | 27.3 | 12.2 | 16.7 |         |
| 2006 | 7     | 11,774                                    | 5,198  | 2,957  | 1,587  | 2,032  |         | 44.1   | 25.1 | 13.5 | 17.3 |         |
| 2006 | 8     | 11,902                                    | 5,018  | 3,254  | 1,451  | 2,179  |         | 42.2   | 27.3 | 12.2 | 18.3 |         |
| 2006 | 9     | 12,527                                    | 5,193  | 3,150  | 1,765  | 2,419  |         | 41.5   | 25.1 | 14.1 | 19.3 |         |
| 2006 | 10    | 12,930                                    | 5,257  | 3,143  | 2,001  | 2,332  | 197     | 40.7   | 24.3 | 15.5 | 18.0 | 1.5     |
| 2006 | 11    | 13,122                                    | 4,948  | 2,740  | 2,432  | 2,512  | 490     | 37.7   | 20.9 | 18.5 | 19.1 | 3.7     |
| 2006 | 12    | 14,592                                    | 5,703  | 2,979  | 2,630  | 2,714  | 566     | 39.1   | 20.4 | 18.0 | 18.6 | 3.9     |
| 2007 | 1     | 11,300                                    | 4,258  | 2,154  | 2,258  | 1,977  | 653     | 37.7   | 19.1 | 20.0 | 17.5 | 5.8     |
| 2007 | 2     | 11,844                                    | 4,173  | 2,208  | 2,349  | 2,447  | 667     | 35.2   | 18.6 | 19.8 | 20.7 | 5.6     |
| 2007 | 3     | 16,022                                    | 5,144  | 2,580  | 3,370  | 3,803  | 1,125   | 32.1   | 16.1 | 21.0 | 23.7 | 7.0     |
| 2007 | 4     | 12,486                                    | 4,276  | 2,028  | 2,952  | 2,299  | 931     | 34.2   | 16.2 | 23.6 | 18.4 | 7.5     |
| 2007 | 5     | 13,198                                    | 4,719  | 1,940  | 3,277  | 2,176  | 1,086   | 35.8   | 14.7 | 24.8 | 16.5 | 8.2     |
| 2007 | 6     | 13,648                                    | 4,508  | 2,055  | 3,467  | 2,434  | 1,184   | 33.0   | 15.1 | 25.4 | 17.8 | 8.7     |
| 2007 | 7     | 12,534                                    | 4,147  | 1,627  | 3,490  | 2,204  | 1,066   | 33.1   | 13.0 | 27.8 | 17.6 | 8.5     |
| 2007 | 8     | 12,914                                    | 4,009  | 1,840  | 3,377  | 2,392  | 1,296   | 31.0   | 14.2 | 26.1 | 18.5 | 10.0    |
| 2007 | 9     | 12,825                                    | 3,965  | 1,676  | 3,515  | 2,420  | 1,249   | 30.9   | 13.1 | 27.4 | 18.9 | 9.7     |
| 2007 | 10    | 14,537                                    | 4,415  | 1,836  | 4,128  | 2,618  | 1,540   | 30.4   | 12.6 | 28.4 | 18.0 | 10.6    |
| 2007 | 11    | 13,579                                    | 4,199  | 1,625  | 3,781  | 2,559  | 1,415   | 30.9   | 12.0 | 27.8 | 18.8 | 10.4    |
| 2007 | 12    | 15,034                                    | 4,416  | 1,997  | 4,295  | 2,875  | 1,451   | 29.4   | 13.3 | 28.6 | 19.1 | 9.7     |
| 2008 | 1     | 11,824                                    | 3,413  | 1,379  | 3,465  | 2,171  | 1,396   | 28.9   | 11.7 | 29.3 | 18.4 | 11.8    |
| 2008 | 2     | 12,786                                    | 3,611  | 1,448  | 3,606  | 2,655  | 1,466   | 28.2   | 11.3 | 28.2 | 20.8 | 11.5    |
| 2008 | 3     | 14,876                                    | 3,964  | 1,706  | 4,111  | 3,362  | 1,733   | 26.6   | 11.5 | 27.6 | 22.6 | 11.6    |
| 2008 | 4     | 13,634                                    | 3,861  | 1,448  | 4,139  | 2,516  | 1,670   | 28.3   | 10.6 | 30.4 | 18.5 | 12.2    |
| 2008 | 5     | 13,181                                    | 3,594  | 1,430  | 4,099  | 2,398  | 1,660   | 27.3   | 10.8 | 31.1 | 18.2 | 12.6    |
| 2008 | 6     | 14,295                                    | 3,782  | 1,457  | 4,868  | 2,604  | 1,584   | 26.5   | 10.2 | 34.1 | 18.2 | 11.1    |
| 2008 | 7     | 13,567                                    | 3,679  | 1,334  | 4,459  | 2,678  | 1,417   | 27.1   | 9.8  | 32.9 | 19.7 | 10.4    |
| 2008 | 8     | 12,048                                    | 3,021  | 1,121  | 3,830  | 2,528  | 1,548   | 25.1   | 9.3  | 31.8 | 21.0 | 12.8    |
| 2008 | 9     | 13,984                                    | 3,504  | 1,300  | 4,679  | 2,855  | 1,646   | 25.1   | 9.3  | 33.5 | 20.4 | 11.8    |
| 2008 | 10    | 14,543                                    | 3,469  | 1,251  | 4,972  | 3,025  | 1,826   | 23.9   | 8.6  | 34.2 | 20.8 | 12.6    |
| 2008 | 11    | 12,319                                    | 2,925  | 1,070  | 4,365  | 2,604  | 1,355   | 23.7   | 8.7  | 35.4 | 21.1 | 11.0    |
| 2008 | 12    | 14,925                                    | 3,281  | 1,209  | 5,517  | 3,303  | 1,615   | 22.0   | 8.1  | 37.0 | 22.1 | 10.8    |
| 2009 | 1     | 10,263                                    | 2,350  | 833    | 3,292  | 2,377  | 1,411   | 22.9   | 8.1  | 32.1 | 23.2 | 13.7    |

## PCT Filings by Top 12 Countries of Origin

Figure 3a: Share of Country in Total PCT Filings: Top 12 Countries of Origin

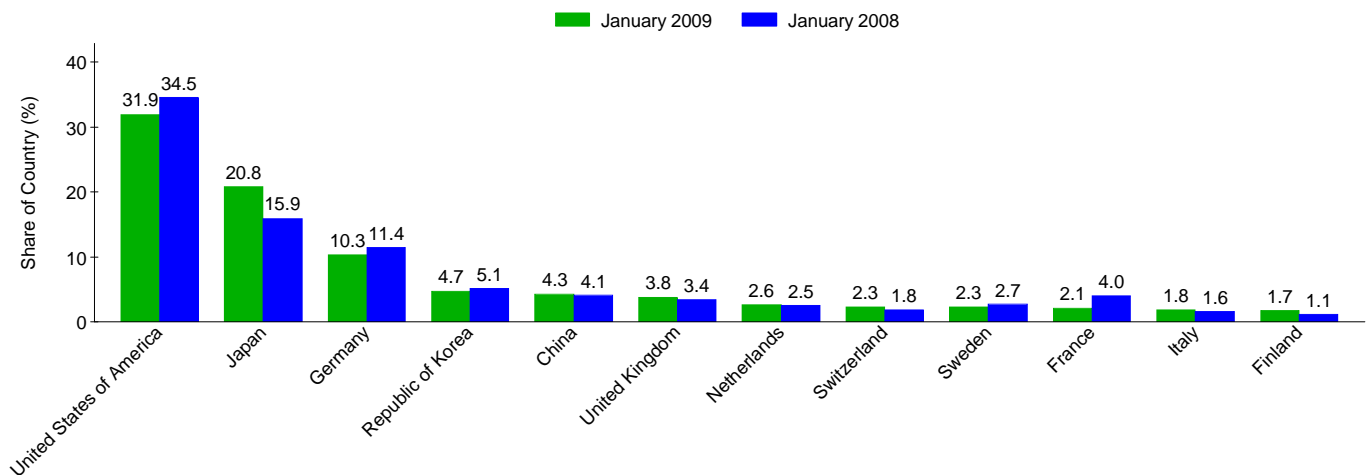
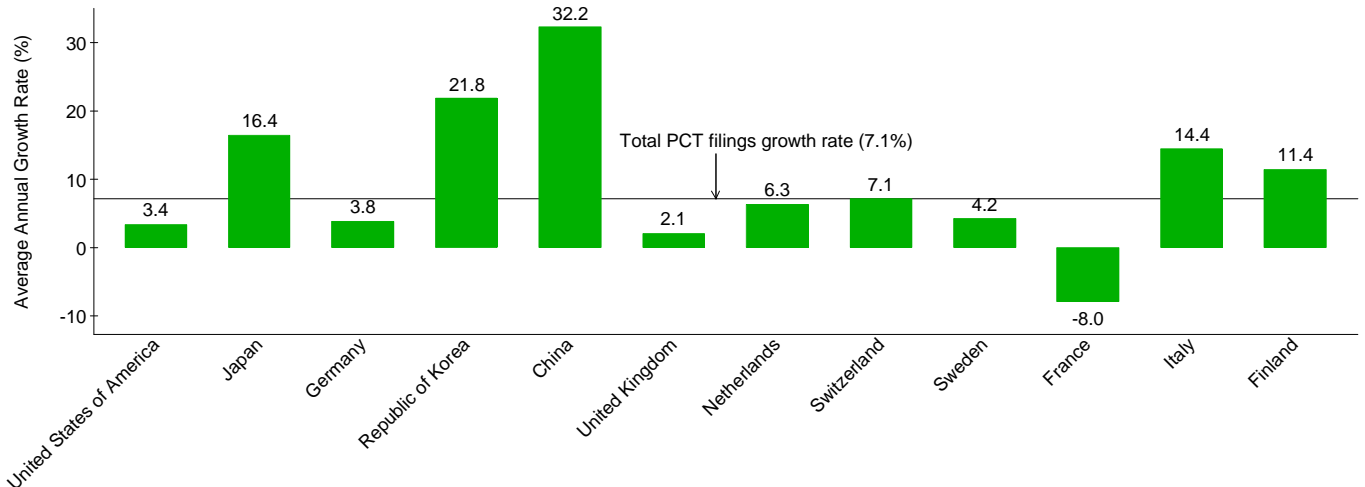


Figure 3b: Growth Rate of PCT Filings: Top 12 Countries of Origin (Jan. 2004 – Jan. 2009)



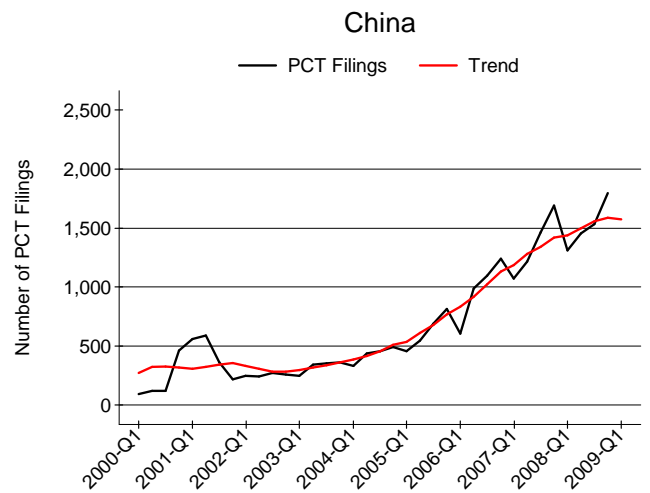
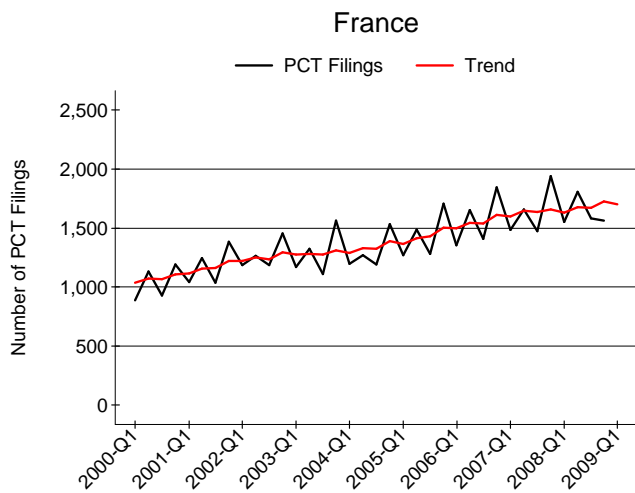
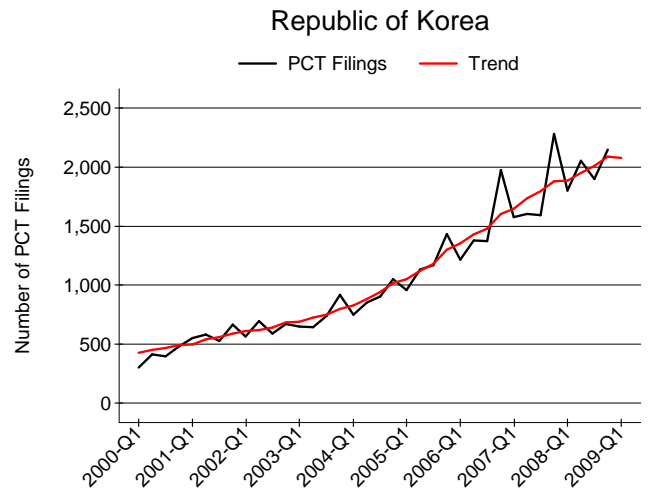
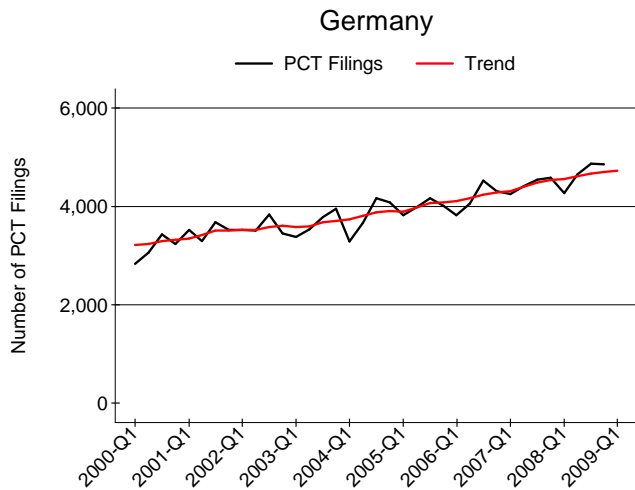
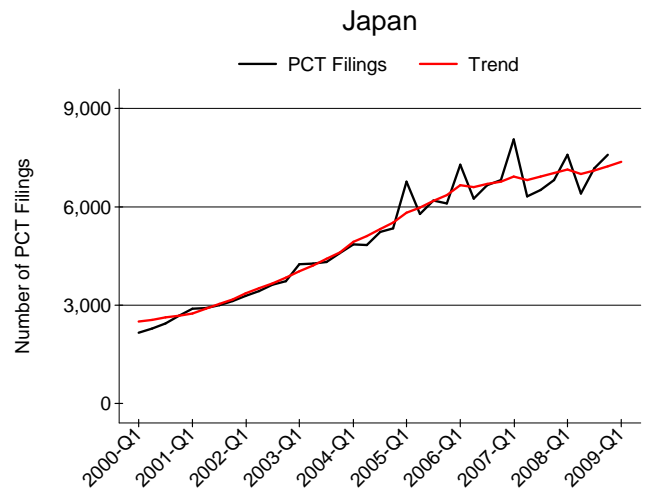
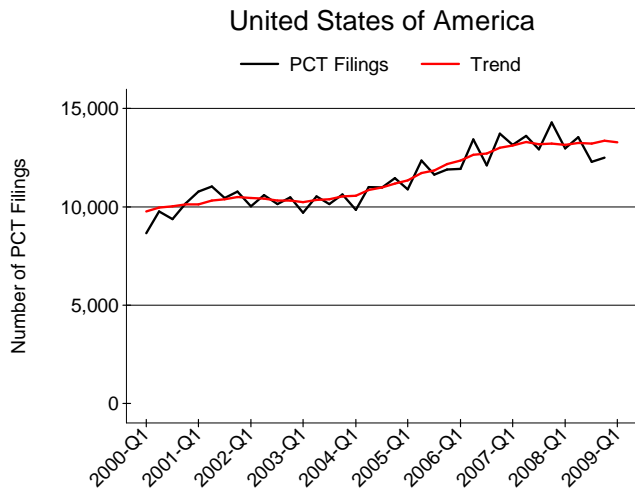
Source: WIPO Statistics Database

Note: 2009 data are provisional and incomplete. The growth rate is the average annual growth rate between January 2004 and January 2009. Counts are based on the international filing date and the country of residence of the first named applicant.

- The United States of America is by far the largest user of the PCT system (figure 3a). 31.9% of the total PCT filings in January 2009 originated from the United States of America. A significant proportion of PCT filings also originated from Japan (20.8%) and Germany (10.3%).
- Between January 2007 and 2008, the share of PCT filings originating from the United States of America decreased by 2.7 percentage, while that of Japan increased by 4.9%
- Over the past five years, there was a considerable increase in the number of PCT filings originating from China and the Republic of Korea. PCT filings originating from China and Republic of Korea increased by 32.2% and 21.8% per year, respectively (figure 3b).
- Since 2001, PCT filings originating from Asian countries have followed an upward trend, while the trend for PCT filings originating from large European countries has been more or less stable (figures 4a and 4b).



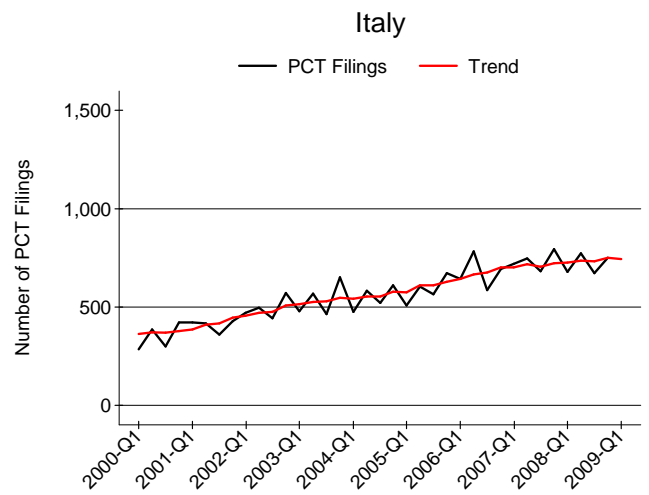
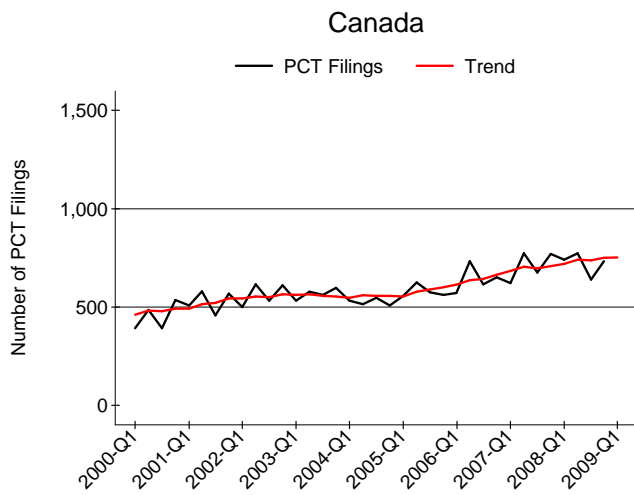
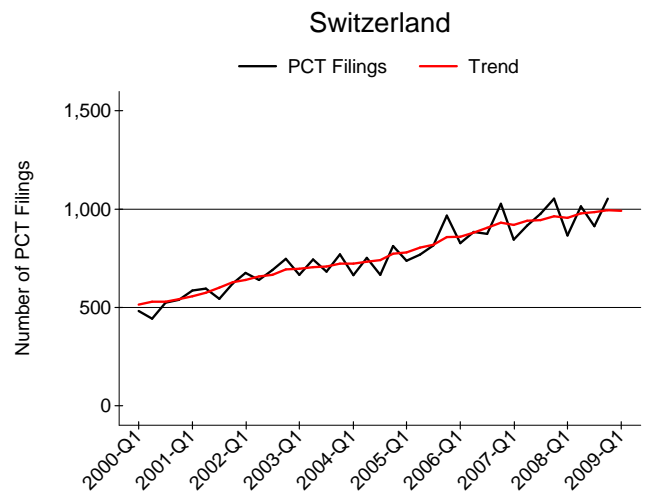
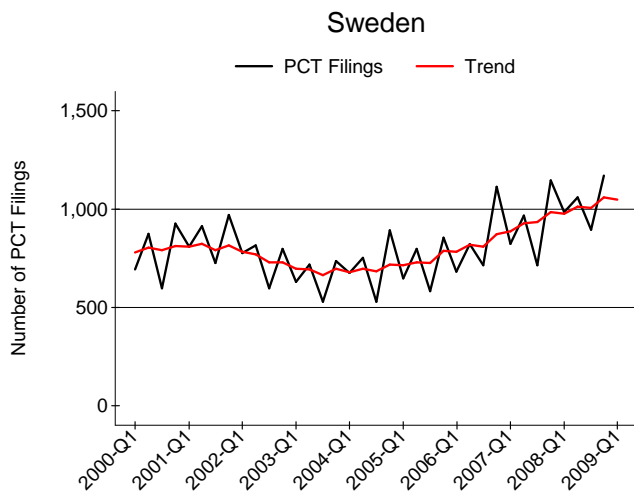
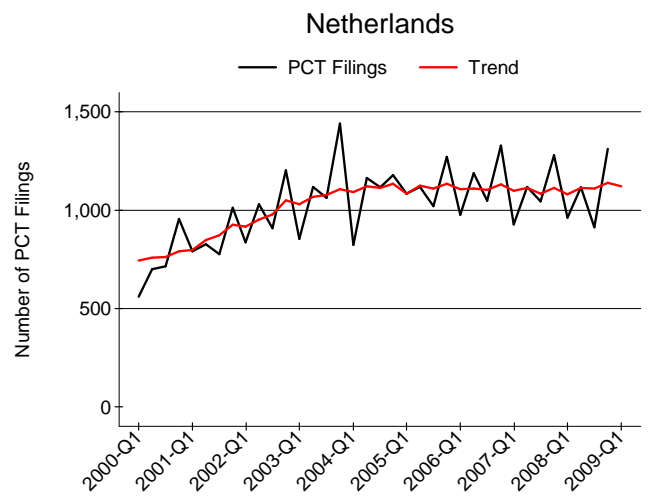
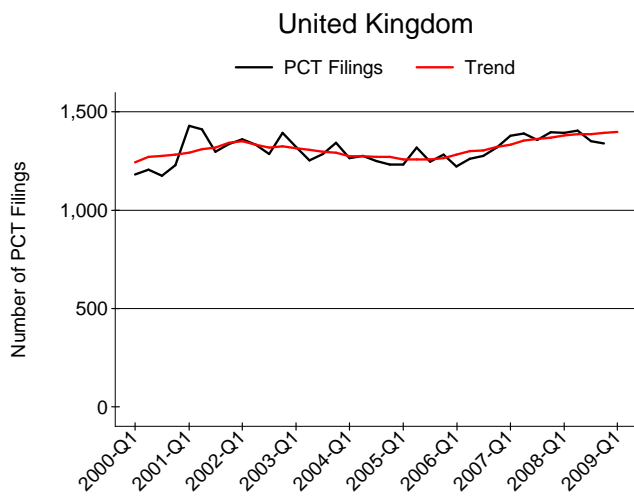
**Figure 4a: Long-term Trends in PCT Filings: Top 12 PCT Countries of Origin**



Source: WIPO Statistics Database

Note: Counts are based on the international filing date and the country of residence of the first named applicants

**Figure 4b: Long-term Trends in PCT Filings: Top 12 PCT Countries of Origin**

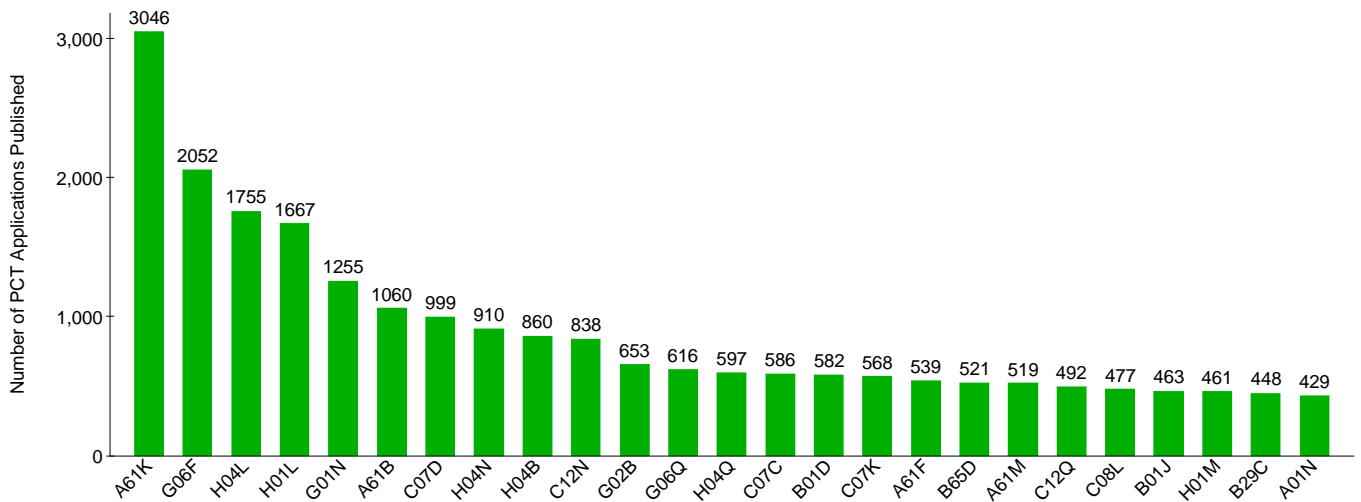


Source: WIPO Statistics Database

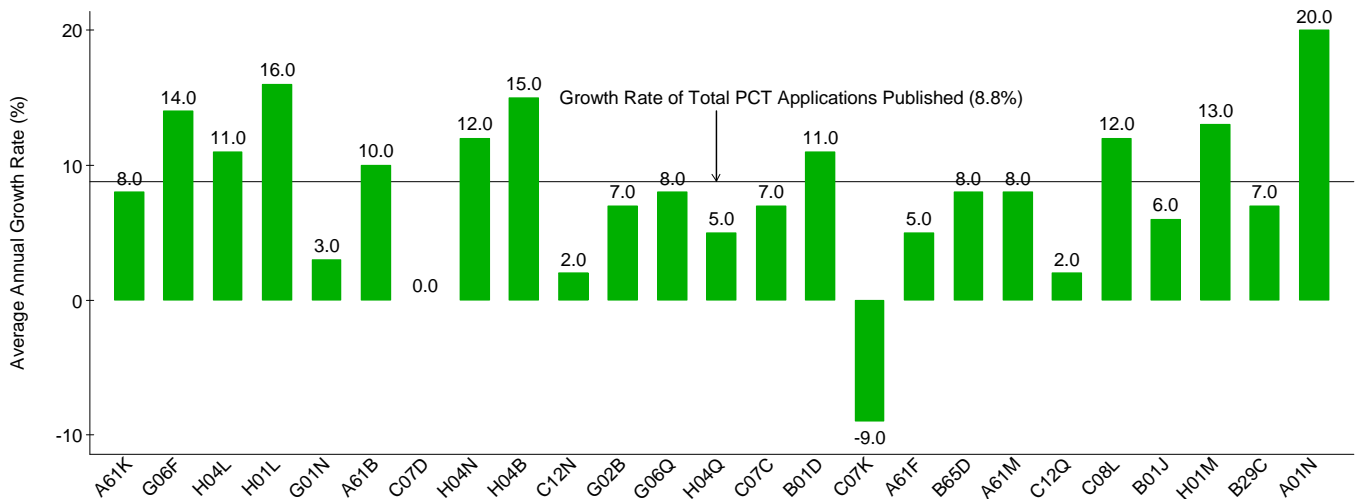
Note: Counts are based on the international filing date and the country of residence of the first named applicants

# PCT Applications by International Patent Classification (IPC): Top 25 IPC Subclasses

**Figure 5a: Top 25 IPC Subclasses (2009, First Quarter )**



**Figure 5b: Average Annual Growth Rate of Top 25 IPC Subclasses (2004-2009, First Quarter )**



Source: WIPO Statistics Database

Note: Counts are based on the publication date. The growth rate is the average annual growth rate between first quarter of 2004 and first quarter of 2009. See annex A1 for definition IPC subclasses.

- Figure 5a and figure 5b show the breakdown of PCT applications published by IPC subclass (top 25 subclasses, rank is based on the 2008 year total). In the first quarter of 2009, the largest number of PCT applications filed was in IPC subclass A61K (preparations for medical, dental, or toilet purposes). It is the only IPC subclass with more than 3,000 PCT applications (figure 5a). A large number of PCT applications was also filed in IPC subclass GO6F (electric digital data processing), IPC subclass H04L (transmission of digital information) and IPC subclass H01L (semiconductor devices).
- Between 2004 and 2009 (first quarter), PCT applications filed in IPC subclass A01N (preservation of bodies of humans or animals or plants or parts thereof), IPC subclass H01L (semiconductor devices) and IPC subclass H01M (processes or means for the direct conversion of chemical energy into electrical energy) increased by 15% or more, per year (figure 5b). Ten IPC subclasses had average annual growth rate above that of the total PCT applications filed.

# PCT Applications by Field of Technology

## Table 2: PCT Applications by Field of Technology

Source: WIPO Statistics Database, April 2009, based on the WIPO IPC-Technology concordance table

Note: Counts are based on the publication date. Multiple IPC classes are recorded in patent documents, therefore, the total number of PCT applications published reported by field of technology is greater than the total number of PCT applications published by the International Bureau (IB). Share (2009, first quarter) is calculated on the basis of the total number of PCT applications published (i.e. number of PCT applications published in a given technology divided by the total number of PCT applications published by the IB). The growth rate (2004/09) is the average annual growth rate between the first quarter of 2004 and the first quarter of 2009.

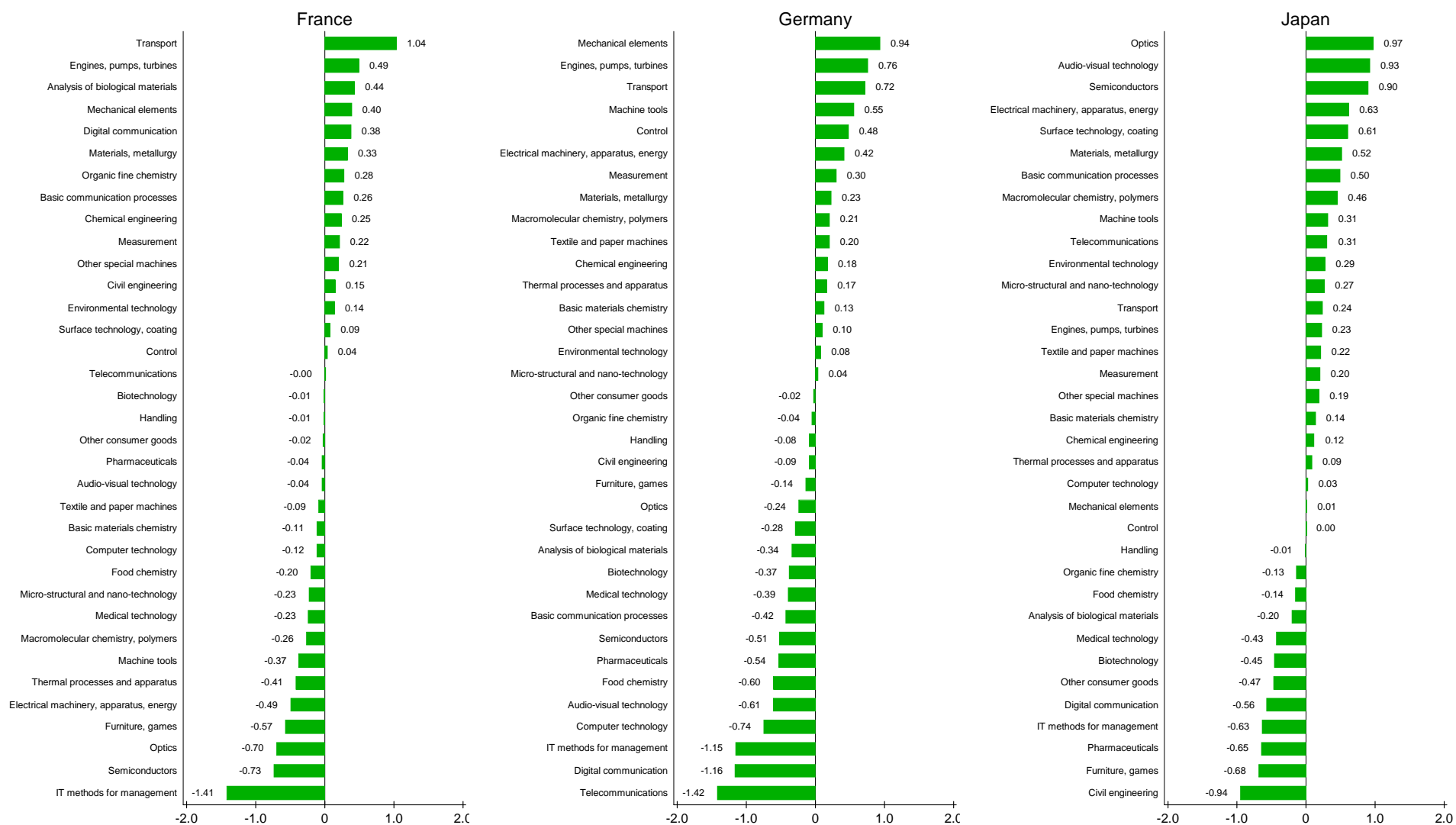
| Sector of Technology / Field of Technology / Year / Quarter                   | 2005           | 2006           | 2007           | 2008           | 2009<br>to date | 2007<br>1     | 2007<br>2     | 2007<br>3     | 2007<br>4     | 2008<br>1     | 2008<br>2     | 2008<br>3     | 2008<br>4     | 2009<br>1     | Share (%)<br>2009-Q1 | Growth<br>2004/09 |
|---|----------------|----------------|----------------|----------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------------|-------------------|
| <b>Electrical engineering</b>   |                |                |                |                |                 |               |               |               |               |               |               |               |               |               |                      |                   |
| Electrical machinery, apparatus, energy                                       | 7,939          | 9,048          | 10,094         | 11,317         | 2,498           | 2,359         | 2,509         | 2,409         | 2,817         | 2,643         | 2,749         | 2,632         | 3,293         | 2,498         | 6.9                  | 13.4              |
| Audio-visual technology   | 6,111          | 6,604          | 6,825          | 6,747          | 1,409           | 1,642         | 1,814         | 1,558         | 1,811         | 1,639         | 1,675         | 1,504         | 1,929         | 1,409         | 3.9                  | 4.8               |
| Telecommunications  | 8,662          | 10,132         | 11,633         | 12,561         | 2,538           | 2,714         | 3,059         | 2,747         | 3,113         | 2,878         | 3,112         | 3,242         | 3,329         | 2,538         | 7.0                  | 10.3              |
| Digital communication   | 5,313          | 5,985          | 7,181          | 8,105          | 1,768           | 1,604         | 1,858         | 1,766         | 1,953         | 1,882         | 2,059         | 2,041         | 2,123         | 1,768         | 4.9                  | 11.2              |
| Basic communication processes   | 1,579          | 1,729          | 1,775          | 1,892          | 424             | 428           | 445           | 463           | 439           | 451           | 465           | 466           | 510           | 424           | 1.2                  | 6.6               |
| Computer technology   | 10,518         | 12,199         | 13,545         | 14,028         | 2,901           | 3,309         | 3,353         | 3,338         | 3,545         | 3,356         | 3,475         | 3,366         | 3,831         | 2,901         | 8.0                  | 12.6              |
| IT methods for management   | 1,542          | 2,062          | 2,397          | 2,951          | 618             | 518           | 589           | 600           | 690           | 622           | 690           | 751           | 888           | 618           | 1.7                  | 7.7               |
| Semiconductors  | 4,663          | 5,946          | 6,431          | 6,940          | 1,666           | 1,622         | 1,576         | 1,489         | 1,744         | 1,487         | 1,643         | 1,698         | 2,112         | 1,666         | 4.6                  | 15.7              |
| <b>Instruments</b>  |                |                |                |                |                 |               |               |               |               |               |               |               |               |               |                      |                   |
| Optics  | 5,147          | 5,917          | 6,063          | 6,421          | 1,361           | 1,427         | 1,552         | 1,448         | 1,636         | 1,506         | 1,581         | 1,569         | 1,765         | 1,361         | 3.7                  | 8.0               |
| Measurement   | 7,102          | 8,093          | 8,768          | 9,181          | 2,083           | 2,088         | 2,126         | 2,216         | 2,338         | 2,072         | 2,349         | 2,153         | 2,607         | 2,083         | 5.7                  | 8.6               |
| Analysis of biological materials  | 3,103          | 2,987          | 2,933          | 3,041          | 632             | 705           | 734           | 703           | 791           | 718           | 773           | 716           | 834           | 632           | 1.7                  | 0.3               |
| Control   | 2,992          | 3,355          | 3,504          | 3,593          | 841             | 854           | 818           | 887           | 945           | 838           | 971           | 838           | 946           | 841           | 2.3                  | 5.3               |
| Medical technology  | 12,059         | 17,737         | 18,931         | 19,752         | 4,209           | 4,486         | 4,730         | 4,466         | 5,249         | 4,660         | 5,068         | 4,730         | 5,294         | 4,209         | 11.6                 | 17.5              |
| <b>Chemistry</b>  |                |                |                |                |                 |               |               |               |               |               |               |               |               |               |                      |                   |
| Organic fine chemistry  | 8,936          | 9,593          | 9,594          | 9,673          | 2,016           | 2,402         | 2,449         | 2,279         | 2,464         | 2,383         | 2,443         | 2,249         | 2,598         | 2,016         | 5.5                  | 1.9               |
| Biotechnology   | 7,656          | 7,484          | 7,544          | 7,755          | 1,720           | 1,749         | 1,937         | 1,787         | 2,071         | 1,685         | 1,845         | 1,938         | 2,287         | 1,720         | 4.7                  | -1.7              |
| Pharmaceuticals   | 10,694         | 12,766         | 12,984         | 13,067         | 2,836           | 3,167         | 3,399         | 2,996         | 3,422         | 3,121         | 3,263         | 3,134         | 3,549         | 2,836         | 7.8                  | 9.0               |
| Macromolecular chemistry, polymers  | 4,106          | 4,823          | 4,830          | 4,983          | 1,143           | 1,180         | 1,238         | 1,089         | 1,323         | 1,216         | 1,292         | 1,139         | 1,336         | 1,143         | 3.1                  | 7.5               |
| Food chemistry  | 2,010          | 2,339          | 2,348          | 2,436          | 523             | 569           | 614           | 554           | 611           | 555           | 574           | 614           | 693           | 523           | 1.4                  | 3.8               |
| Basic materials chemistry   | 5,415          | 6,257          | 6,902          | 7,396          | 1,707           | 1,606         | 1,736         | 1,744         | 1,816         | 1,671         | 1,892         | 1,725         | 2,108         | 1,707         | 4.7                  | 10.3              |
| Materials, metallurgy   | 3,241          | 3,745          | 4,018          | 4,307          | 957             | 1,018         | 914           | 986           | 1,100         | 1,009         | 1,047         | 1,031         | 1,220         | 957           | 2.6                  | 7.9               |
| Surface technology, coating   | 3,734          | 4,374          | 4,316          | 4,431          | 945             | 1,028         | 1,080         | 974           | 1,234         | 1,024         | 1,127         | 1,021         | 1,259         | 945           | 2.6                  | 6.7               |
| Micro-structural and nano-technology  | 249            | 357            | 429            | 524            | 126             | 102           | 126           | 90            | 111           | 96            | 140           | 140           | 148           | 126           | 0.3                  | 17.2              |
| Chemical engineering  | 4,808          | 5,407          | 5,604          | 6,045          | 1,394           | 1,351         | 1,362         | 1,419         | 1,472         | 1,432         | 1,465         | 1,391         | 1,757         | 1,394         | 3.8                  | 6.9               |
| Environmental technology  | 2,156          | 2,564          | 2,936          | 3,343          | 809             | 683           | 706           | 740           | 807           | 736           | 795           | 808           | 1,004         | 809           | 2.2                  | 12.7              |
| <b>Mechanical engineering</b>   |                |                |                |                |                 |               |               |               |               |               |               |               |               |               |                      |                   |
| Handling  | 4,311          | 4,853          | 5,091          | 5,071          | 1,191           | 1,183         | 1,283         | 1,187         | 1,438         | 1,203         | 1,261         | 1,160         | 1,447         | 1,191         | 3.3                  | 10.9              |
| Machine tools   | 3,358          | 3,580          | 3,748          | 4,259          | 982             | 933           | 881           | 931           | 1,003         | 1,022         | 1,027         | 1,042         | 1,168         | 982           | 2.7                  | 10.1              |
| Engines, pumps, turbines  | 3,474          | 3,951          | 4,534          | 5,139          | 1,212           | 1,110         | 1,111         | 1,073         | 1,240         | 1,161         | 1,295         | 1,283         | 1,400         | 1,212         | 3.3                  | 11.4              |
| Textile and paper machines  | 3,087          | 3,468          | 3,138          | 3,219          | 710             | 724           | 826           | 773           | 815           | 713           | 810           | 791           | 905           | 710           | 2.0                  | 5.7               |
| Other special machines  | 4,897          | 5,393          | 5,473          | 6,032          | 1,341           | 1,317         | 1,386         | 1,276         | 1,494         | 1,324         | 1,525         | 1,480         | 1,703         | 1,341         | 3.7                  | 8.1               |
| Thermal processes and apparatus   | 1,932          | 2,172          | 2,505          | 2,825          | 645             | 580           | 588           | 662           | 675           | 668           | 700           | 717           | 740           | 645           | 1.8                  | 13.7              |
| Mechanical elements   | 4,167          | 4,761          | 5,152          | 5,873          | 1,310           | 1,221         | 1,279         | 1,292         | 1,360         | 1,324         | 1,526         | 1,378         | 1,645         | 1,310         | 3.6                  | 11.1              |
| Transport   | 5,649          | 6,132          | 6,828          | 7,671          | 1,742           | 1,709         | 1,727         | 1,655         | 1,737         | 1,674         | 2,044         | 1,854         | 2,099         | 1,742         | 4.8                  | 11.1              |
| <b>Other fields</b>   |                |                |                |                |                 |               |               |               |               |               |               |               |               |               |                      |                   |
| Furniture, games  | 3,660          | 4,185          | 4,457          | 4,415          | 1,020           | 1,157         | 1,053         | 1,034         | 1,213         | 1,062         | 1,138         | 1,038         | 1,177         | 1,020         | 2.8                  | 9.7               |
| Other consumer goods  | 3,260          | 3,705          | 3,856          | 4,130          | 894             | 901           | 1,018         | 889           | 1,048         | 981           | 1,004         | 1,045         | 1,100         | 894           | 2.5                  | 7.1               |
| Civil engineering   | 3,953          | 4,411          | 4,733          | 5,303          | 1,253           | 1,113         | 1,166         | 1,132         | 1,322         | 1,180         | 1,283         | 1,298         | 1,542         | 1,253         | 3.4                  | 8.2               |
| <b>Total Number of PCT Applications Published by the International Bureau</b> | <b>125,291</b> | <b>138,740</b> | <b>150,075</b> | <b>161,028</b> | <b>36,334</b>   | <b>35,968</b> | <b>37,602</b> | <b>36,239</b> | <b>40,266</b> | <b>36,975</b> | <b>40,168</b> | <b>39,070</b> | <b>44,815</b> | <b>36,334</b> | <b>-</b>             | <b>8.8</b>        |

Note: The IPC-technology concordance table used to distribute PCT applications by field of technology is available at: [www.wipo.int/ipstats/en/statistics/patents/](http://www.wipo.int/ipstats/en/statistics/patents/)

- In the first quarter of 2009, the largest number of PCT filings was in the field of medical technology (11.6%), followed by computer technology (8.0%) and pharmaceuticals (7.8%).
- Between 2004 and 2009 (first quarter), the largest increase in the number of PCT filings was in medical technology (17.5%), micro-structural and nanotechnology (17.2%), semiconductors (15.7%), thermal processes and apparatus (13.7%) and electrical machinery, apparatus, energy (13.4%).

# Relative Specialization Index: PCT Applications by Field of Technology (Top 6 Countries of Origin)

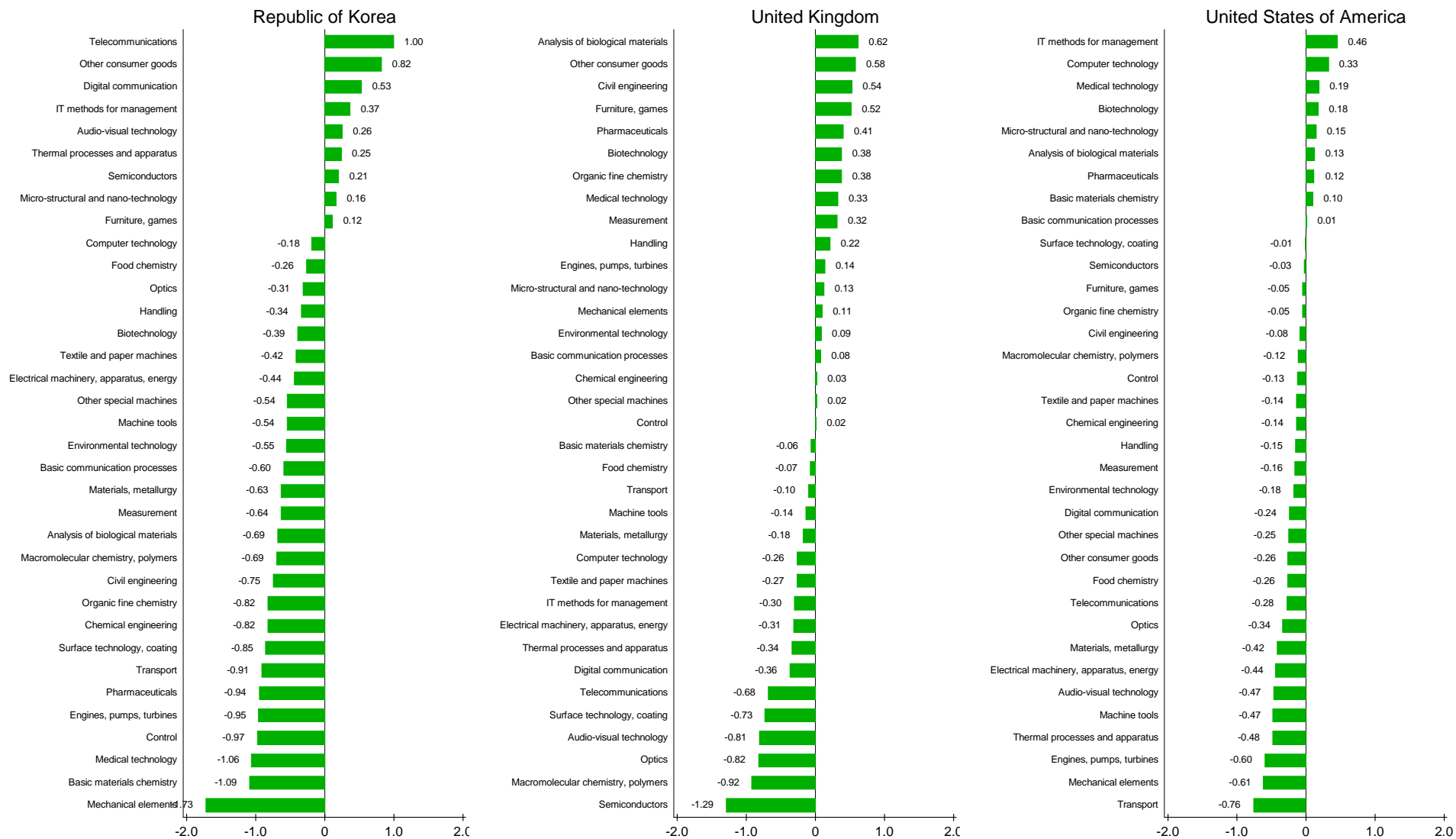
## Figure 6a: Relative Specialization Index (2008): PCT Applications by Field of Technology



Source: WIPO Statistics Database

Note: Counts are based on the publication date and the country of the residence of the first named applicant. Relative specialization index (RSI) is calculated using the following formula: log of the country's share in PCT applications published in a specific technology minus log of the country's share in total PCT applications published. A positive RSI value for a particular technology implies that the country has a relatively high share in PCT applications published in that technology. Similarly, a negative RSI value implies that the country has a relatively low share in that technology.

**Figure 6b: Relative Specialization Index (2008): PCT Applications by Field of Technology**



Source: WIPO Statistics Database

Note: Counts are based on the publication date and the country of the residence of the first named applicant. Relative specialization index (RSI) is calculated using the following formula:  $\log$  of the country's share in PCT applications published in a specific technology minus  $\log$  of the country's share in total PCT applications published. A positive RSI value for a particular technology implies that the country has a relatively high share in PCT applications published in that technology. Similarly, a negative RSI value implies that the country has a relatively low share in that technology.

- The relative specialization index (RSI) is calculated to measure a country's degree of concentration of PCT filings (based on published applications) in a particular technology. The formula used for the Relative

Specialization Index is  $RSI = \log \left( \frac{F_{c,t} / \sum_c F_{c,t}}{\sum_t F_{c,t} / \sum_{c,t} F_{c,t}} \right)$  where F is the number of PCT applications in a given

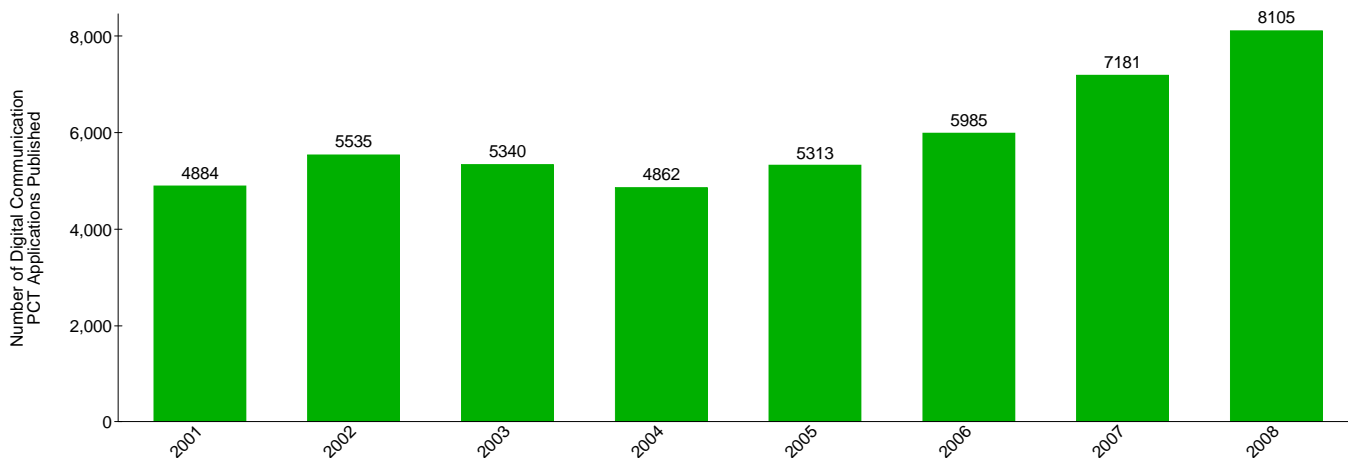
technology field and country of origin and c, t are indexes for the country of origin and technology field respectively.

- A positive RSI value for a particular technology implies that the country has a relatively high share of PCT applications in that technology (i.e. it has a higher share in PCT applications in this technology relative to its share in all technologies). Similarly, a negative RSI value implies that the country has a relatively low share of PCT applications in that technology.
- Figure 6a and figure 6b present the RSI values by field of technology for the top six countries of origin. Both France and Germany have a relatively high share of PCT applications in mechanical engineering (e.g. transport; mechanical elements; engines, turbines, etc.).
- Japan, on the other hand, has a relatively high share of PCT applications in technologies related to optics, audio-visual technology and semiconductors.
- Republic of Korea has a relatively high share of PCT applications in telecommunications, other consumer goods and digital communications.
- The United Kingdom has a relatively high share of PCT applications in technologies related to analysis of biological materials, other consumer goods and civil engineering,
- The United States has a relatively high share of PCT applications in IT methods for management, computer technology, medical technology and biotechnology

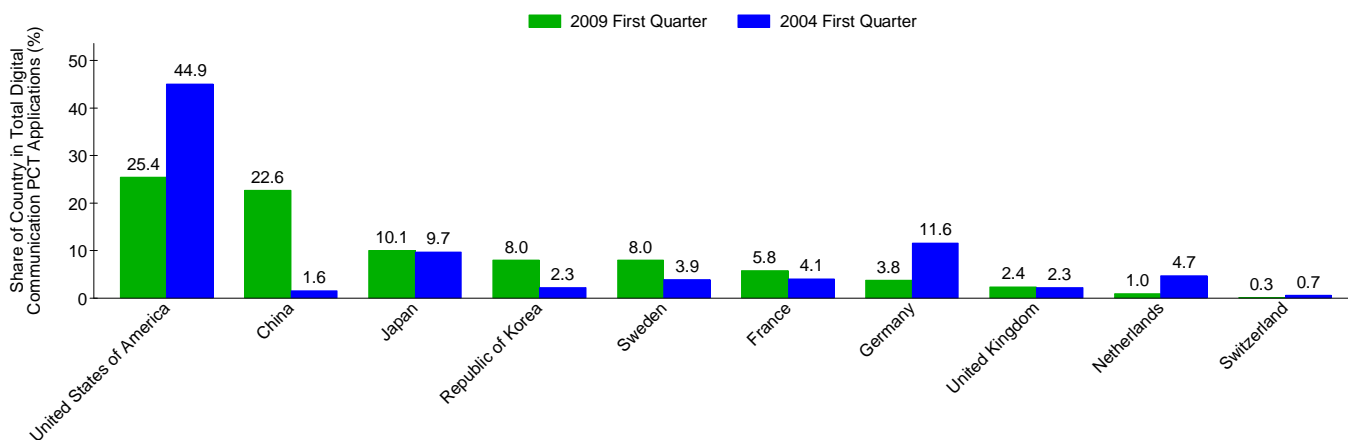
## Focus on a Specific Technology: Digital Communication Technology PCT Applications

- Figure 7a, figure 7b and figure 7c provide a detailed breakdown of PCT filings in the field of digital communication technology. In 2008, 8,105 digital communication technology PCT applications were filed, representing a 66% increase from the 2001 level (figure 7a).
- The latest available data (2009, first quarter) show that the largest number of digital communication technology PCT filings originated from the United States of America (25.4%) and China (22.6%). However, between (first quarter) 2004 and 2009, the share of the United States of America decreased by 19.5 percentage points. In contrast, the share of China increased by 21 percentage points (figure 7b).
- China (28.7%) and Sweden (18.3%) have the highest ratio of digital communication technology PCT applications relative to their respective total PCT applications (figure 7c). They also had the most notable increase in the ratio of digital communication technology PCT applications to their total PCT applications.

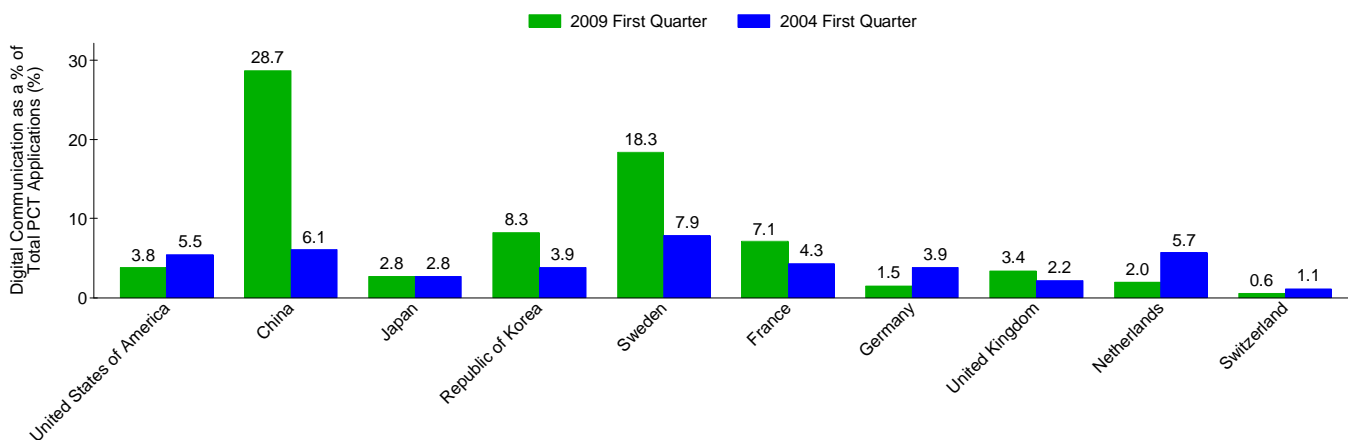
**Figure 7a: Number of Digital Communication Technology PCT Applications (2001-08)**



**Figure 7b: Share of Countries in Digital Communication Technology PCT Applications (2009, First Quarter)**



**Figure 7c: Digital Communication PCT Applications as a % of Total PCT Applications (2009, First Quarter)**

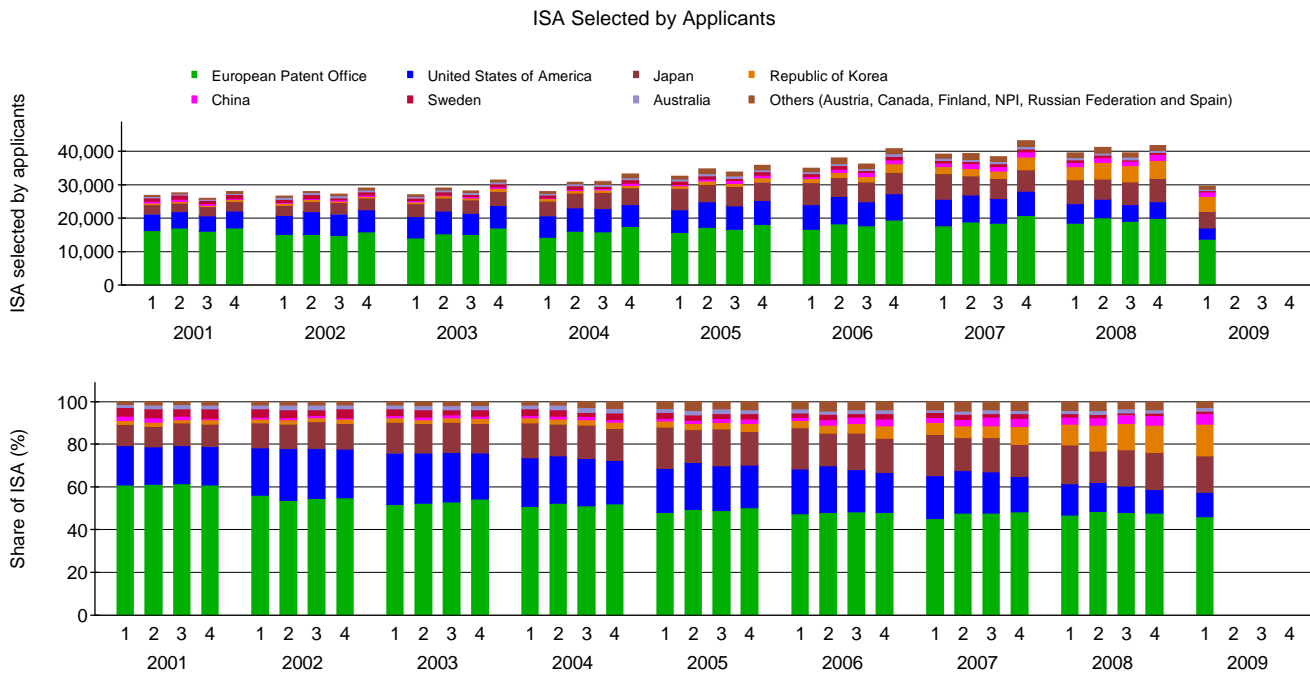


Source: WIPO Statistics Database

Note: Counts are based on the publication date and the country of residence of the first named applicant. Digital communication technology is defined by IPC subclass H04 (Electric Communication Technique). This IPC subclass covers electrical communication systems with propagation paths employing beams of corpuscular radiation, acoustic waves or electromagnetic waves, e.g. radio or optical communication.

# International Searching Authorities (ISA) Selected by Applicants and International Search Reports (ISRs) Established by International Searching Authorities

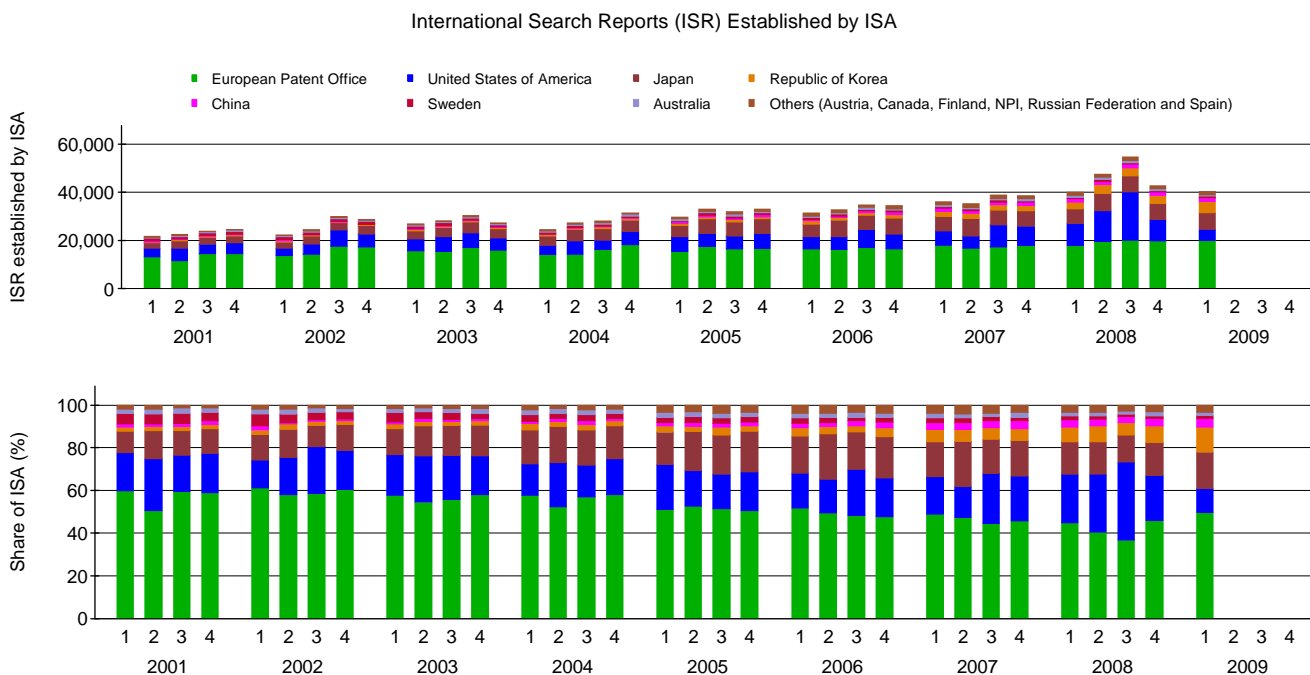
## Figure 8a: International Searching Authorities (ISA) Selected by PCT Applicants



Source: WIPO Statistics Database

Note: 2009 data are provisional and incomplete. Counts are based on the international filing date. NPI (Nordic Patent Institute).

## Figure 8b: International Search Reports (ISR) Established by ISA



Source: WIPO Statistics Database

Note: 2009 data are provisional and incomplete. Counts are based on the establishment of international search report. NPI (Nordic Patent Institute).

- Figure 8a shows the number and distribution of International Searching Authorities (ISAs) selected by PCT applicants. In 2009 (first quarter), 46% of PCT applicants selected the European Patent Office (ISA/EP) as their ISA. The Japanese Patent Office (ISA/JP) and the Korean Intellectual Property Organization (ISA/KR) were selected as ISA by 17.4% and 14.7% of PCT applicants (figure 8a).
- Since 2001, the share of PCT applicants selecting ISA/EP as their ISA has followed a downward trend. For example, in 2008, 47.6% of PCT applicants selected ISA/EP as their ISA, compared to 61% in 2001. In contrast, PCT applicants selecting ISA/JP and ISA/KR have followed an upward trend. For example, in 2008, 16.7% of PCT applicants selected ISA/JP as their ISA, compared to 10.2% in 2001. Similarly, in 2008, 11.7% of PCT applicants selected ISA/KR as their ISA, compared to 1.9% in 2001.
- In 2009 (first quarter), the total number of International Search Reports (ISRs) established by all ISAs amounted to 40,136 (figure 8b). The European Patent Office established approximately half of all ISRs established in 2009 (first quarter). The distribution of ISRs established by all ISAs is similar to that of the distribution of ISAs selected by PCT applicants.

## Methodological Information

### The Patent Cooperation Treaty (PCT)

The Patent Cooperation Treaty (PCT) is an international treaty administered by the World Intellectual Property Organization (WIPO). The PCT makes it possible to seek patent protection for an invention simultaneously in a large number of countries by filing a single "international application" with a single patent office (i.e. receiving Office). The PCT system simplifies the process of multi-national patent filings by reducing the requirement to file multiple patent applications for multi-national patent rights. The PCT international applications do not result in issuance of "international patents" and the International Bureau (IB) does not grant patents. The decision on whether to confer patent rights remains at the discretion of the national and/or regional patent offices, and the patent rights are limited to the jurisdiction of the patent granting authority.

The PCT procedure consists of an international phase and a national/regional phase. The PCT international application process starts with the international phase and concludes with the national/regional phase. The timeline for the PCT procedure is illustrated below<sup>1</sup>. In most cases, the applicant tends to file a patent application at the national patent office in the first instance (date of the first filing is commonly referred to as the priority date), followed by a PCT international application within 12 months from the priority date. Within sixteen months from the priority date, one of the International Searching Authorities (ISA) will conduct an international search and establish an International Search Report (ISR) along with the written opinion of the ISA. The purpose of the international search is to identify all relevant prior art. The ISR lists all prior art documents considered to be relevant, the classification of the subject matter and an indication of the field searched. The ISA also establishes a preliminary and non-binding written opinion on the questions whether the invention appears to be novel, involves an inventive step and is industrially applicable. Both the ISR and the written opinion are transmitted to the applicant and the International Bureau.

The PCT international application, the ISR and any amendments are published by the IB after the expiration of the eighteen months from the priority date. At this point, the claimed invention is disclosed in the public domain.

The applicant has the option to request an international preliminary examination (IPE). The request for the IPE must be submitted within twenty-two months from the priority date. The main purpose of the IPE is to provide a preliminary non-binding opinion on the patentability (whether the invention is novel, involves an inventive step and has an industrial application) of the claimed invention. Within twenty-eight months from the priority date, one of the International Preliminary Examining Authorities (IPEA) will establish an international preliminary report of the patentability IPRP (Chapter II), which includes a statement on the patentability of the invention and the citation of the documents believed to support that statement.

If the applicant wishes to proceed to the national/regional phase, he must enter the national/regional phase within thirty months from the priority date. Once the application enters the national (regional) phase, it is subject to the formalities of the national (or regional) patent office. The application will be processed by the national (regional) patent office to decide whether to confer (or reject) patent rights for the claimed invention.

### PCT Terminology

**International Bureau (IB):** International Bureau of the World Intellectual Property Organization. In addition to its task as receiving Office for applicants from all Contracting States, it handles certain processing tasks with respect to all international applications filed with all receiving Offices worldwide.

**International filing date:** The date of receipt of the international application by the receiving Office.

**International Preliminary Examining Authority (IPEA):** National patent office (or intergovernmental organization) appointed by the PCT Assembly to carry out the international preliminary examination procedure. IPEA establishes the international preliminary report on patentability (Chapter II of the PCT).

**International Preliminary Report on Patentability (Chapter II of the PCT):** Preliminary, non-binding opinion established by the International Preliminary Examining Authority at the request of the applicant, on the

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<sup>1</sup> It should be noted that the information and timeline relating to the PCT procedure outlined here are intended for statistical purposes. Only basic information (and terminology) about the PCT procedure is provided to aid readers to understand statistics reported in this document. For comprehensive details about the PCT procedure, please refer to PCT Resources on [www.wipo.int/pct/en](http://www.wipo.int/pct/en).

questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), and to be industrially applicable.

**International Searching Authority (ISA):** National patent office (or intergovernmental organization) appointed by the PCT Assembly to carry out international searches. It establishes International Search Reports (ISR) and the written opinion of the ISA.

**International Search Report (ISR):** Report established by the International Searching Authority containing citations of documents considered to be relevant, the classification of the subject matter of the invention and an indication of the fields searched.

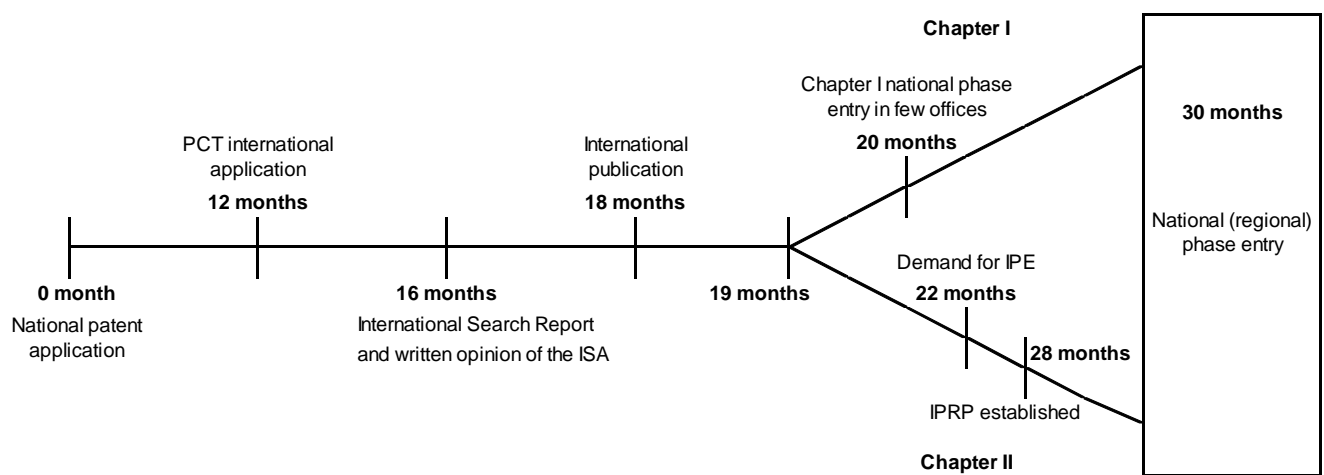
**Medium of filing:** Method used by the applicant to file PCT international application.

**Priority date:** The date of the first filing.

**Publication date:** The date on which the International Bureau (IB) publishes the international application.

**Receiving Office:** Patent office (national, regional, intergovernmental or international organization) with which the international application is filed.

## PCT Timeline



## Annex A1: Number of PCT Applications International Patent Classification (IPC)

Source: WIPO Statistics Database, April 2009

Note: Counts are based on the publication date. Multiple IPC classes are recorded in patent documents, therefore, the total number of PCT applications published reported by IPC subclasses is greater than the total number of PCT applications published by the International Bureau.

| IPC Subclasses /<br>Year / Quarter | 2004  | 2005   | 2006   | 2007   | 2008   | 2009    | 2004  | 2004  | 2004  | 2004  | 2005  | 2005  | 2005  | 2005  | 2006  | 2006  | 2006  | 2006  | 2007  | 2007  | 2007  | 2007  | 2008  | 2008  | 2008  | 2008  | 2009  |
|------------------------------------|-------|--------|--------|--------|--------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                    | -     | -      | -      | -      | -      | to date | 1     | 2     | 3     | 4     | 1     | 2     | 3     | 4     | 1     | 2     | 3     | 4     | 1     | 2     | 3     | 4     | 1     | 2     | 3     | 4     | 1     |
| A61K                               | 9,554 | 11,494 | 13,796 | 13,955 | 14,008 | 3,046   | 2,038 | 2,369 | 2,538 | 2,609 | 2,754 | 2,771 | 2,701 | 3,268 | 3,492 | 3,433 | 3,349 | 3,522 | 3,388 | 3,640 | 3,247 | 3,680 | 3,360 | 3,543 | 3,334 | 3,771 | 3,046 |
| G06F                               | 5,387 | 7,539  | 8,614  | 9,732  | 10,122 | 2,052   | 1,064 | 1,334 | 1,425 | 1,564 | 1,656 | 1,772 | 1,893 | 2,218 | 2,104 | 2,328 | 2,018 | 2,164 | 2,356 | 2,381 | 2,442 | 2,553 | 2,392 | 2,486 | 2,454 | 2,790 | 2,052 |
| H04L                               | 4,861 | 5,308  | 5,998  | 7,238  | 8,109  | 1,755   | 1,042 | 1,314 | 1,279 | 1,226 | 1,297 | 1,298 | 1,284 | 1,429 | 1,432 | 1,533 | 1,463 | 1,570 | 1,606 | 1,883 | 1,778 | 1,971 | 1,893 | 2,060 | 2,036 | 2,120 | 1,755 |
| H01L                               | 3,958 | 4,667  | 5,960  | 6,429  | 6,930  | 1,667   | 802   | 991   | 1,096 | 1,069 | 1,017 | 1,066 | 1,217 | 1,367 | 1,424 | 1,507 | 1,417 | 1,612 | 1,619 | 1,568 | 1,497 | 1,745 | 1,485 | 1,647 | 1,691 | 2,107 | 1,667 |
| G01N                               | 4,571 | 5,201  | 5,422  | 5,504  | 5,625  | 1,255   | 1,069 | 1,165 | 1,211 | 1,126 | 1,204 | 1,258 | 1,265 | 1,474 | 1,399 | 1,267 | 1,312 | 1,444 | 1,323 | 1,363 | 1,327 | 1,491 | 1,308 | 1,435 | 1,348 | 1,534 | 1,255 |
| A61B                               | 3,422 | 3,792  | 4,499  | 4,769  | 5,149  | 1,060   | 659   | 905   | 894   | 964   | 837   | 916   | 950   | 1,089 | 1,067 | 1,121 | 1,043 | 1,268 | 1,108 | 1,156 | 1,132 | 1,373 | 1,145 | 1,333 | 1,258 | 1,413 | 1,060 |
| C07D                               | 4,286 | 4,633  | 5,087  | 5,042  | 4,959  | 999     | 978   | 1,033 | 1,102 | 1,173 | 1,095 | 1,146 | 1,173 | 1,219 | 1,308 | 1,306 | 1,229 | 1,244 | 1,279 | 1,285 | 1,171 | 1,307 | 1,234 | 1,231 | 1,149 | 1,345 | 999   |
| H04N                               | 2,607 | 3,103  | 3,528  | 3,995  | 4,046  | 910     | 525   | 669   | 755   | 658   | 698   | 692   | 812   | 901   | 897   | 941   | 824   | 866   | 913   | 1,077 | 931   | 1,074 | 961   | 1,004 | 914   | 1,167 | 910   |
| H04Q                               | 2,143 | 2,666  | 3,013  | 3,511  | 3,900  | 597     | 478   | 532   | 574   | 559   | 608   | 672   | 690   | 696   | 711   | 747   | 700   | 855   | 791   | 927   | 828   | 965   | 911   | 978   | 1,050 | 961   | 597   |
| C12N                               | 3,262 | 3,503  | 3,761  | 3,793  | 3,768  | 838     | 775   | 816   | 837   | 834   | 835   | 848   | 848   | 972   | 944   | 973   | 918   | 926   | 929   | 986   | 856   | 1,022 | 791   | 910   | 974   | 1,093 | 838   |
| H04B                               | 2,011 | 2,390  | 3,041  | 3,383  | 3,688  | 860     | 423   | 562   | 526   | 500   | 536   | 534   | 661   | 659   | 766   | 757   | 730   | 788   | 824   | 864   | 772   | 923   | 811   | 944   | 969   | 964   | 860   |
| G02B                               | 2,005 | 2,429  | 2,861  | 2,878  | 3,072  | 653     | 468   | 477   | 487   | 573   | 540   | 555   | 644   | 690   | 676   | 765   | 712   | 708   | 658   | 743   | 681   | 796   | 709   | 757   | 786   | 820   | 653   |
| G06Q                               | 1,896 | 1,541  | 2,072  | 2,398  | 2,939  | 616     | 427   | 509   | 486   | 474   | 431   | 411   | 333   | 366   | 509   | 522   | 496   | 545   | 523   | 592   | 598   | 685   | 617   | 685   | 749   | 888   | 616   |
| A61F                               | 2,012 | 2,347  | 2,631  | 2,840  | 2,744  | 539     | 417   | 513   | 555   | 527   | 488   | 571   | 624   | 664   | 664   | 616   | 628   | 723   | 696   | 689   | 698   | 757   | 697   | 680   | 668   | 699   | 539   |
| C07C                               | 1,937 | 2,325  | 2,351  | 2,466  | 2,523  | 586     | 413   | 479   | 530   | 515   | 528   | 620   | 604   | 573   | 606   | 601   | 551   | 593   | 635   | 590   | 620   | 621   | 639   | 622   | 582   | 680   | 586   |
| C07K                               | 3,225 | 2,791  | 2,537  | 2,582  | 2,504  | 568     | 886   | 892   | 734   | 713   | 783   | 737   | 625   | 646   | 636   | 599   | 656   | 646   | 592   | 686   | 650   | 654   | 555   | 624   | 592   | 733   | 568   |
| B65D                               | 1,698 | 2,132  | 2,442  | 2,504  | 2,453  | 521     | 356   | 402   | 464   | 476   | 480   | 534   | 479   | 639   | 598   | 673   | 540   | 631   | 611   | 636   | 550   | 707   | 608   | 641   | 543   | 661   | 521   |
| B01D                               | 1,600 | 1,644  | 1,988  | 2,214  | 2,425  | 582     | 351   | 418   | 439   | 392   | 362   | 381   | 444   | 457   | 516   | 499   | 477   | 496   | 546   | 543   | 542   | 583   | 542   | 544   | 602   | 737   | 582   |
| C12Q                               | 2,118 | 2,474  | 2,456  | 2,242  | 2,334  | 492     | 440   | 592   | 572   | 514   | 612   | 613   | 589   | 660   | 663   | 568   | 603   | 622   | 518   | 575   | 550   | 599   | 534   | 554   | 572   | 674   | 492   |
| A61M                               | 1,655 | 1,860  | 2,045  | 2,128  | 2,287  | 519     | 358   | 460   | 419   | 418   | 428   | 473   | 460   | 499   | 477   | 511   | 480   | 577   | 495   | 489   | 498   | 646   | 576   | 574   | 524   | 613   | 519   |
| H01M                               | 1,115 | 1,491  | 1,781  | 1,932  | 2,236  | 461     | 248   | 278   | 265   | 324   | 326   | 356   | 399   | 410   | 404   | 471   | 457   | 449   | 422   | 491   | 500   | 519   | 551   | 527   | 543   | 615   | 461   |
| C08L                               | 1,271 | 1,518  | 2,033  | 2,051  | 2,078  | 477     | 270   | 281   | 380   | 340   | 314   | 352   | 420   | 432   | 446   | 580   | 521   | 486   | 505   | 548   | 449   | 549   | 498   | 530   | 478   | 572   | 477   |
| B01J                               | 1,615 | 1,587  | 1,813  | 1,869  | 1,979  | 463     | 350   | 435   | 431   | 399   | 295   | 367   | 491   | 434   | 451   | 452   | 451   | 459   | 445   | 456   | 474   | 494   | 448   | 483   | 448   | 600   | 463   |
| B29C                               | 1,457 | 1,543  | 1,693  | 1,766  | 1,885  | 448     | 319   | 354   | 422   | 362   | 366   | 356   | 387   | 434   | 402   | 435   | 403   | 453   | 464   | 425   | 379   | 498   | 419   | 484   | 424   | 558   | 448   |
| A01N                               | 860   | 1,285  | 1,456  | 1,742  | 1,874  | 429     | 173   | 216   | 212   | 259   | 266   | 310   | 335   | 374   | 380   | 317   | 368   | 391   | 424   | 438   | 430   | 450   | 404   | 480   | 452   | 538   | 429   |

A01N: preservation of bodies of humans or animals or plants or parts thereof; biocides, e.g. as disinfectants, as pesticides, as herbicides; pest repellants or attractants; plant growth regulators.

A61B: diagnosis; surgery; identification.

A61F: filters implantable into blood vessels; prostheses; devices providing patency to, or preventing collapsing of, tubular structures of the body.

A61K: preparations for medical, dental, or toilet purposes.

A61M: devices for introducing media into, or onto, the body; devices for transducing body media or for taking media from the body; devices for producing or ending sleep or stupor

B01D: separation

B01J: chemical or physical processes, e.g. catalysis, colloid chemistry; their relevant apparatus

B29C: shaping or joining of plastics; shaping of substances in a plastic state, in general; after- treatment of the shaped products, e.g. repairing

B65D: containers for storage or transport of articles or materials,

C07C: acyclic or carbocyclic compounds

C07D: heterocyclic compounds

C07K: peptides

C08L: compositions of macromolecular compounds

C12N: micro-organisms or enzymes; compositions thereof; propagating, preserving, or maintaining micro-organisms; mutation or genetic engineering; culture media

C12Q: measuring or testing processes involving enzymes or micro-organisms; compositions or test papers therefor; processes of preparing such compositions; condition-responsive control in microbiological or enzymological processes

G01N: investigating or analysing materials by determining their chemical or physical properties

G02B: optical elements, systems, or apparatus

G06F: electric digital data processing

G06Q: data processing systems or methods, specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes;

H01L: semiconductor devices; electric solid state devices not otherwise provided for

H01M: processes or means, e.g. batteries, for the direct conversion of chemical energy into electrical energy

H04B: transmission

H04L: transmission of digital information

H04N: pictorial communication

H04Q: selecting





### Annex A3: Digital Communication Technology PCT Applications: Top 10 Countries of Origin

Source: WIPO Statistics Database, April 2009, based on the WIPO IPC-Technology concordance table

Note: Counts are based on the publication date. Multiple IPC classes are recorded in patent documents, therefore, the total number of PCT applications published reported by field of technology is greater than the total number of PCT applications published. Digital communication technology is defined by IPC subclass H04 (electronic communication technique).

#### Number of Digital Communication Technology PCT Applications by Country of Origin

| Origin / Year /Quarter   | 2004  | 2005  | 2006  | 2007  | 2008  | 2009    | 2004  | 2004  | 2004  | 2004  | 2005  | 2005  | 2005  | 2005  | 2006  | 2006  | 2006  | 2006  | 2007  | 2007  | 2007  | 2007  | 2008  | 2008  | 2008  | 2008  | 2009  |
|--------------------------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                          | -     | -     | -     | -     | -     | to date | 1     | 2     | 3     | 4     | 1     | 2     | 3     | 4     | 1     | 2     | 3     | 4     | 1     | 2     | 3     | 4     | 1     | 2     | 3     | 4     | 1     |
| Total                    | 4,862 | 5,313 | 5,985 | 7,181 | 8,105 | 1,768   | 1,042 | 1,313 | 1,279 | 1,228 | 1,300 | 1,301 | 1,284 | 1,428 | 1,428 | 1,533 | 1,461 | 1,563 | 1,604 | 1,858 | 1,766 | 1,953 | 1,882 | 2,059 | 2,041 | 2,123 | 1,768 |
| China                    | 126   | 247   | 386   | 1021  | 1335  | 400     | 17    | 44    | 27    | 38    | 58    | 57    | 60    | 72    | 81    | 93    | 131   | 237   | 232   | 282   | 270   | 316   | 323   | 331   | 365   | 400   |       |
| France                   | 217   | 297   | 366   | 485   | 455   | 103     | 43    | 47    | 63    | 64    | 73    | 64    | 70    | 90    | 72    | 109   | 100   | 85    | 112   | 115   | 114   | 144   | 108   | 106   | 109   | 132   | 103   |
| Germany                  | 489   | 451   | 416   | 421   | 385   | 68      | 121   | 121   | 125   | 122   | 127   | 127   | 87    | 110   | 112   | 112   | 100   | 92    | 102   | 102   | 94    | 123   | 120   | 100   | 89    | 76    | 68    |
| Japan                    | 668   | 704   | 890   | 787   | 877   | 178     | 101   | 160   | 188   | 219   | 173   | 155   | 168   | 208   | 228   | 214   | 251   | 197   | 192   | 181   | 213   | 201   | 196   | 200   | 230   | 251   | 178   |
| Netherlands              | 237   | 213   | 245   | 240   | 194   | 18      | 49    | 71    | 62    | 55    | 53    | 41    | 61    | 58    | 60    | 66    | 55    | 64    | 58    | 90    | 46    | 46    | 49    | 38    | 64    | 43    | 18    |
| Republic of Korea        | 161   | 220   | 335   | 432   | 538   | 142     | 24    | 47    | 34    | 56    | 49    | 53    | 63    | 55    | 60    | 91    | 82    | 102   | 69    | 133   | 117   | 113   | 109   | 178   | 133   | 118   | 142   |
| Sweden                   | 196   | 290   | 365   | 410   | 657   | 142     | 41    | 56    | 41    | 58    | 52    | 70    | 96    | 72    | 75    | 113   | 68    | 109   | 75    | 139   | 83    | 113   | 102   | 187   | 182   | 186   | 142   |
| Switzerland              | 28    | 29    | 29    | 21    | 30    | 5       | 7     | 8     | 5     | 8     | 8     | 6     | 8     | 7     | 8     | 11    | 6     | 4     | 2     | 6     | 9     | 4     | 9     | 4     | 6     | 11    | 5     |
| United Kingdom           | 114   | 123   | 125   | 163   | 233   | 43      | 24    | 39    | 25    | 26    | 20    | 41    | 24    | 38    | 42    | 31    | 23    | 29    | 36    | 40    | 44    | 43    | 51    | 60    | 39    | 83    | 43    |
| United States of America | 1,941 | 1,867 | 1,869 | 2,304 | 2,303 | 449     | 468   | 525   | 509   | 439   | 505   | 497   | 427   | 438   | 450   | 478   | 458   | 483   | 492   | 577   | 556   | 679   | 609   | 559   | 582   | 553   | 449   |

#### Share of Countries in Total Digital Communication Technology PCT Applications

| Year / Quarter           | 2004 | 2005 | 2006 | 2007 | 2008 | 2009    | 2004 | 2004 | 2004 | 2004 | 2005 | 2005 | 2005 | 2005 | 2006 | 2006 | 2006 | 2006 | 2007 | 2007 | 2007 | 2007 | 2008 | 2008 | 2008 | 2008 | 2009 |
|--------------------------|------|------|------|------|------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                          | -    | -    | -    | -    | -    | to date | 1    | 2    | 3    | 4    | 1    | 2    | 3    | 4    | 1    | 2    | 3    | 4    | 1    | 2    | 3    | 4    | 1    | 2    | 3    | 4    | 1    |
| China                    | 2.6  | 4.6  | 6.4  | 14.2 | 16.5 | 22.6    | 1.6  | 3.4  | 2.1  | 3.1  | 4.5  | 4.4  | 4.7  | 5.0  | 5.7  | 5.3  | 6.4  | 8.4  | 14.8 | 12.5 | 16.0 | 13.8 | 16.8 | 15.7 | 16.2 | 17.2 | 22.6 |
| France                   | 4.5  | 5.6  | 6.1  | 6.8  | 5.6  | 5.8     | 4.1  | 3.6  | 4.9  | 5.2  | 5.6  | 4.9  | 5.5  | 6.3  | 5.0  | 7.1  | 6.8  | 5.4  | 7.0  | 6.2  | 6.5  | 7.4  | 5.7  | 5.1  | 5.3  | 6.2  | 5.8  |
| Germany                  | 10.1 | 8.5  | 7.0  | 5.9  | 4.8  | 3.8     | 11.6 | 9.2  | 9.8  | 9.9  | 9.8  | 9.8  | 6.8  | 7.7  | 7.8  | 7.3  | 6.8  | 5.9  | 6.4  | 5.5  | 5.3  | 6.3  | 6.4  | 4.9  | 4.4  | 3.6  | 3.8  |
| Japan                    | 13.7 | 13.3 | 14.9 | 11.0 | 10.8 | 10.1    | 9.7  | 12.2 | 14.7 | 17.8 | 13.3 | 11.9 | 13.1 | 14.6 | 16.0 | 14.0 | 17.2 | 12.6 | 12.0 | 9.7  | 12.1 | 10.3 | 10.4 | 9.7  | 11.3 | 11.8 | 10.1 |
| Netherlands              | 4.9  | 4.0  | 4.1  | 3.3  | 2.4  | 1.0     | 4.7  | 5.4  | 4.8  | 4.5  | 4.1  | 3.2  | 4.8  | 4.1  | 4.2  | 4.3  | 3.8  | 4.1  | 3.6  | 4.8  | 2.6  | 2.4  | 2.6  | 1.8  | 3.1  | 2.0  | 1.0  |
| Republic of Korea        | 3.3  | 4.1  | 5.6  | 6.0  | 6.6  | 8.0     | 2.3  | 3.6  | 2.7  | 4.6  | 3.8  | 4.1  | 4.9  | 3.9  | 4.2  | 5.9  | 5.6  | 6.5  | 4.3  | 7.2  | 6.6  | 5.8  | 5.8  | 8.6  | 6.5  | 5.6  | 8.0  |
| Sweden                   | 4.0  | 5.5  | 6.1  | 5.7  | 8.1  | 8.0     | 3.9  | 4.3  | 3.2  | 4.7  | 4.0  | 5.4  | 7.5  | 5.0  | 5.3  | 7.4  | 4.7  | 7.0  | 4.7  | 7.5  | 4.7  | 5.8  | 5.4  | 9.1  | 8.9  | 8.8  | 8.0  |
| Switzerland              | 0.6  | 0.5  | 0.5  | 0.3  | 0.4  | 0.3     | 0.7  | 0.6  | 0.4  | 0.7  | 0.6  | 0.5  | 0.6  | 0.5  | 0.6  | 0.7  | 0.4  | 0.3  | 0.1  | 0.3  | 0.5  | 0.2  | 0.5  | 0.2  | 0.3  | 0.5  | 0.3  |
| United Kingdom           | 2.3  | 2.3  | 2.1  | 2.3  | 2.9  | 2.4     | 2.3  | 3.0  | 2.0  | 2.1  | 1.5  | 3.2  | 1.9  | 2.7  | 2.9  | 2.0  | 1.6  | 1.9  | 2.2  | 2.5  | 2.2  | 2.7  | 2.9  | 1.9  | 3.9  | 2.4  |      |
| United States of America | 39.9 | 35.1 | 31.2 | 32.1 | 28.4 | 25.4    | 44.9 | 40.0 | 39.8 | 35.7 | 38.8 | 38.2 | 33.3 | 30.7 | 31.5 | 31.2 | 31.3 | 30.9 | 30.7 | 31.1 | 31.5 | 34.8 | 32.4 | 27.1 | 28.5 | 26.0 | 25.4 |

#### Digital Communication Technology PCT Applications as a % of Total PCT Applications

| Year / Quarter           | 2004 | 2005 | 2006 | 2007 | 2008 | 2009    | 2004 | 2004 | 2004 | 2004 | 2005 | 2005 | 2005 | 2005 | 2006 | 2006 | 2006 | 2006 | 2007 | 2007 | 2007 | 2007 | 2008 | 2008 | 2008 | 2008 | 2009 |
|--------------------------|------|------|------|------|------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                          | -    | -    | -    | -    | -    | to date | 1    | 2    | 3    | 4    | 1    | 2    | 3    | 4    | 1    | 2    | 3    | 4    | 1    | 2    | 3    | 4    | 1    | 2    | 3    | 4    | 1    |
| China                    | 9.4  | 14.7 | 14.8 | 24.7 | 24.1 | 28.7    | 6.1  | 14.1 | 7.5  | 9.6  | 15.4 | 14.5 | 14.4 | 14.0 | 12.7 | 16.1 | 16.0 | 23.2 | 23.1 | 27.8 | 24.6 | 24.1 | 23.8 | 24.9 | 23.7 | 28.7 |      |
| France                   | 4.5  | 5.8  | 6.2  | 7.7  | 6.9  | 7.1     | 4.4  | 4.0  | 4.3  | 5.4  | 6.0  | 5.3  | 5.4  | 6.6  | 4.6  | 7.1  | 7.1  | 5.9  | 7.1  | 6.9  | 7.6  | 9.0  | 7.2  | 6.6  | 7.4  | 6.7  | 7.1  |
| Germany                  | 3.4  | 2.9  | 2.6  | 2.5  | 2.2  | 1.5     | 3.9  | 3.2  | 3.3  | 3.3  | 3.4  | 3.2  | 2.3  | 2.7  | 2.8  | 2.8  | 2.6  | 2.4  | 2.4  | 2.5  | 2.3  | 2.8  | 2.7  | 2.2  | 2.1  | 1.6  | 1.5  |
| Japan                    | 3.6  | 3.2  | 3.5  | 3.0  | 3.1  | 2.8     | 2.8  | 3.7  | 3.6  | 4.0  | 3.5  | 3.2  | 2.8  | 3.3  | 3.7  | 3.5  | 3.9  | 2.9  | 3.0  | 2.8  | 3.2  | 2.8  | 3.2  | 3.0  | 3.4  | 3.0  | 2.8  |
| Netherlands              | 5.4  | 4.9  | 5.6  | 5.5  | 4.4  | 2.0     | 5.7  | 6.1  | 5.1  | 4.7  | 4.8  | 3.9  | 5.5  | 5.4  | 5.6  | 5.2  | 5.8  | 6.0  | 5.5  | 6.2  | 5.8  | 4.4  | 4.6  | 3.1  | 6.8  | 3.7  | 2.0  |
| Republic of Korea        | 5.3  | 6.3  | 6.9  | 7.4  | 7.6  | 8.3     | 3.9  | 6.4  | 4.3  | 6.2  | 5.9  | 6.1  | 6.8  | 6.2  | 5.0  | 8.6  | 6.2  | 8.1  | 5.6  | 8.3  | 7.8  | 7.6  | 7.2  | 9.4  | 7.6  | 6.2  | 8.3  |
| Sweden                   | 7.9  | 11.3 | 13.4 | 12.8 | 17.6 | 18.3    | 7.9  | 9.7  | 6.1  | 7.9  | 10.7 | 10.3 | 13.8 | 10.3 | 13.3 | 13.8 | 10.4 | 15.7 | 12.1 | 13.6 | 12.1 | 12.7 | 14.5 | 18.7 | 19.1 | 17.1 | 18.3 |
| Switzerland              | 1.0  | 1.0  | 0.9  | 0.6  | 0.8  | 0.6     | 1.1  | 1.2  | 0.7  | 1.1  | 1.2  | 0.8  | 1.2  | 0.9  | 1.0  | 1.2  | 0.8  | 0.5  | 0.2  | 0.6  | 1.2  | 0.4  | 0.9  | 0.4  | 0.8  | 1.1  | 0.6  |
| United Kingdom           | 2.3  | 2.5  | 2.6  | 3.1  | 4.2  | 3.4     | 2.2  | 3.1  | 1.9  | 2.0  | 1.6  | 3.4  | 2.1  | 2.9  | 3.3  | 2.4  | 2.1  | 2.4  | 2.9  | 3.0  | 3.8  | 3.0  | 3.7  | 4.3  | 3.1  | 5.5  | 3.4  |
| United States of America | 5.0  | 4.2  | 3.9  | 4.4  | 4.2  | 3.8     | 5.5  | 5.2  | 5.0  | 4.4  | 4.6  | 4.5  | 4.0  | 3.7  | 3.7  | 4.0  | 3.9  | 3.9  | 3.9  | 4.6  | 4.3  | 4.8  | 4.9  | 4.1  | 4.2  | 3.7  | 3.8  |

## Annex A4: ISA Selected by PCT Applicants and ISRs Established by ISA

Source: WIPO Statistics Database, April 2009

### International Search Authorities (ISAs) Selected by PCT Applicants

Note: 2009 data are provisional and incomplete. Counts are based on the international filing date.

#### ISA selected by applicants

| ISA_Name / ISA_Code<br>Year / Quarter | 2004           | 2005           | 2006           | 2007           | 2008           | 2009<br>to date | 2006<br>1     | 2006<br>2     | 2006<br>3     | 2006<br>4     | 2007<br>1     | 2007<br>2     | 2007<br>3     | 2007<br>4     | 2008<br>1     | 2008<br>2     | 2008<br>3     | 2008<br>4     | 2009<br>1     |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Australia                             | 2,503          | 2,737          | 2,752          | 2,809          | 2,740          | 445             | 587           | 700           | 688           | 777           | 580           | 699           | 760           | 770           | 620           | 714           | 718           | 688           | 445           |
| Austria                               | 824            | 915            | 1,098          | 1,172          | 1,146          | 206             | 243           | 268           | 277           | 310           | 261           | 293           | 310           | 308           | 298           | 262           | 305           | 281           | 206           |
| Canada                                | 855            | 2,105          | 2,314          | 2,525          | 2,447          | 342             | 513           | 667           | 550           | 584           | 554           | 697           | 610           | 664           | 643           | 660           | 547           | 597           | 342           |
| China                                 | 1,650          | 2,482          | 3,890          | 5,492          | 6,179          | 1,398           | 595           | 963           | 1,095         | 1,237         | 1,078         | 1,235         | 1,487         | 1,692         | 1,326         | 1,479         | 1,559         | 1,815         | 1,398         |
| European Patent Office                | 63,207         | 67,111         | 71,535         | 75,392         | 77,116         | 13,578          | 16,508        | 18,156        | 17,435        | 19,436        | 17,606        | 18,755        | 18,268        | 20,763        | 18,392        | 19,894        | 19,006        | 19,824        | 13,578        |
| Finland                               |                | 426            | 642            | 718            | 660            | 135             | 142           | 197           | 130           | 173           | 177           | 241           | 108           | 192           | 131           | 205           | 119           | 205           | 135           |
| Japan                                 | 18,695         | 23,020         | 25,146         | 25,946         | 27,114         | 5,144           | 6,750         | 5,797         | 6,181         | 6,418         | 7,539         | 5,953         | 6,061         | 6,393         | 7,201         | 6,025         | 6,723         | 7,165         | 5,144         |
| Nordic Patent Institute               |                |                |                |                | 101            | 24              |               |               |               |               |               |               |               |               | 30            | 28            | 17            | 26            | 24            |
| Republic of Korea                     | 3,211          | 4,230          | 6,670          | 10,235         | 18,943         | 4,348           | 1,171         | 1,416         | 1,593         | 2,490         | 2,207         | 2,202         | 2,175         | 3,651         | 3,851         | 4,980         | 4,804         | 5,308         | 4,348         |
| Russian Federation                    | 616            | 723            | 805            | 853            | 823            | 42              | 163           | 205           | 197           | 240           | 182           | 214           | 186           | 271           | 214           | 234           | 218           | 157           | 42            |
| Spain                                 | 772            | 986            | 1,063          | 1,142          | 1,192          | 142             | 215           | 313           | 254           | 281           | 296           | 298           | 215           | 333           | 285           | 361           | 245           | 301           | 142           |
| Sweden                                | 3,400          | 3,381          | 3,191          | 3,134          | 2,338          | 403             | 688           | 930           | 587           | 986           | 770           | 843           | 662           | 859           | 677           | 666           | 399           | 596           | 403           |
| United States of America              | 26,897         | 28,627         | 30,542         | 30,500         | 21,167         | 3,314           | 7,364         | 8,252         | 7,215         | 7,711         | 7,915         | 7,901         | 7,431         | 7,253         | 5,816         | 5,599         | 4,938         | 4,814         | 3,314         |
| <b>Total</b>                          | <b>122,630</b> | <b>136,743</b> | <b>149,648</b> | <b>159,918</b> | <b>161,966</b> | <b>29,521</b>   | <b>34,939</b> | <b>37,864</b> | <b>36,202</b> | <b>40,643</b> | <b>39,165</b> | <b>39,331</b> | <b>38,273</b> | <b>43,149</b> | <b>39,484</b> | <b>41,107</b> | <b>39,598</b> | <b>41,777</b> | <b>29,521</b> |

#### Distribution of ISA selected by the applicants (%)

| ISA_Name / ISA_Code<br>Year / Quarter | 2004 | 2005 | 2006 | 2007 | 2008 | 2009<br>to date | 2006<br>1 | 2006<br>2 | 2006<br>3 | 2006<br>4 | 2007<br>1 | 2007<br>2 | 2007<br>3 | 2007<br>4 | 2008<br>1 | 2008<br>2 | 2008<br>3 | 2008<br>4 | 2009<br>1 |
|---------------------------------------|------|------|------|------|------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Australia                             | 2.0  | 2.0  | 1.8  | 1.8  | 1.7  | 1.5             | 1.7       | 1.8       | 1.9       | 1.9       | 1.5       | 1.8       | 2.0       | 1.8       | 1.6       | 1.7       | 1.8       | 1.6       | 1.5       |
| Austria                               | 0.7  | 0.7  | 0.7  | 0.7  | 0.7  | 0.7             | 0.7       | 0.7       | 0.8       | 0.8       | 0.7       | 0.7       | 0.8       | 0.7       | 0.8       | 0.6       | 0.8       | 0.7       | 0.7       |
| Canada                                | 0.7  | 1.5  | 1.5  | 1.6  | 1.5  | 1.2             | 1.5       | 1.8       | 1.5       | 1.4       | 1.4       | 1.8       | 1.6       | 1.5       | 1.6       | 1.6       | 1.4       | 1.4       | 1.2       |
| China                                 | 1.3  | 1.8  | 2.6  | 3.4  | 3.8  | 4.7             | 1.7       | 2.5       | 3.0       | 3.0       | 2.8       | 3.1       | 3.9       | 3.9       | 3.4       | 3.6       | 3.9       | 4.3       | 4.7       |
| European Patent Office                | 51.5 | 49.1 | 47.8 | 47.1 | 47.6 | 46.0            | 47.2      | 48.0      | 48.2      | 47.8      | 45.0      | 47.7      | 47.7      | 48.1      | 46.6      | 48.4      | 48.0      | 47.5      | 46.0      |
| Finland                               |      | 0.3  | 0.4  | 0.4  | 0.4  | 0.5             | 0.4       | 0.5       | 0.4       | 0.4       | 0.5       | 0.6       | 0.3       | 0.4       | 0.3       | 0.5       | 0.3       | 0.5       | 0.5       |
| Japan                                 | 15.2 | 16.8 | 16.8 | 16.2 | 16.7 | 17.4            | 19.3      | 15.3      | 17.1      | 15.8      | 19.2      | 15.1      | 15.8      | 14.8      | 18.2      | 14.7      | 17.0      | 17.2      | 17.4      |
| Nordic Patent Institute               |      |      |      |      | 0.1  | 0.1             |           |           |           |           |           |           |           |           | 0.1       | 0.1       |           | 0.1       | 0.1       |
| Republic of Korea                     | 2.6  | 3.1  | 4.5  | 6.4  | 11.7 | 14.7            | 3.4       | 3.7       | 4.4       | 6.1       | 5.6       | 5.6       | 5.7       | 8.5       | 9.8       | 12.1      | 12.1      | 12.7      | 14.7      |
| Russian Federation                    | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  | 0.1             | 0.5       | 0.5       | 0.5       | 0.6       | 0.5       | 0.5       | 0.5       | 0.6       | 0.5       | 0.6       | 0.6       | 0.4       | 0.1       |
| Spain                                 | 0.6  | 0.7  | 0.7  | 0.7  | 0.7  | 0.5             | 0.6       | 0.8       | 0.7       | 0.7       | 0.8       | 0.8       | 0.6       | 0.8       | 0.7       | 0.9       | 0.6       | 0.7       | 0.5       |
| Sweden                                | 2.8  | 2.5  | 2.1  | 2.0  | 1.4  | 1.4             | 2.0       | 2.5       | 1.6       | 2.4       | 2.0       | 2.1       | 1.7       | 2.0       | 1.7       | 1.6       | 1.0       | 1.4       | 1.4       |
| United States of America              | 21.9 | 20.9 | 20.4 | 19.1 | 13.1 | 11.2            | 21.1      | 21.8      | 19.9      | 19.0      | 20.2      | 20.1      | 19.4      | 16.8      | 14.7      | 13.6      | 12.5      | 11.5      | 11.2      |

### International Search Reports (ISRs) Established by International Searching Authorities (ISA)

Note: 2009 data are provisional and incomplete. Counts are based on the date of establishment of ISR.

#### Number of ISR established by ISA

| ISA_Name / ISA_Code<br>Year / Quarter | 2004           | 2005           | 2006           | 2007           | 2008           | 2009<br>to date | 2006<br>1     | 2006<br>2     | 2006<br>3     | 2006<br>4     | 2007<br>1     | 2007<br>2     | 2007<br>3     | 2007<br>4     | 2008<br>1     | 2008<br>2     | 2008<br>3     | 2008<br>4     | 2009<br>1     |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Australia                             | 2,363          | 2,659          | 2,604          | 2,792          | 2,765          | 531             | 662           | 586           | 711           | 645           | 728           | 612           | 696           | 756           | 613           | 746           | 705           | 701           | 531           |
| Austria                               | 788            | 781            | 843            | 938            | 941            | 292             | 192           | 286           | 187           | 178           | 271           | 248           | 198           | 221           | 253           | 273           | 209           | 206           | 292           |
| Canada                                | 99             | 2,111          | 2,116          | 2,307          | 2,484          | 506             | 498           | 488           | 572           | 558           | 521           | 568           | 667           | 551           | 607           | 639           | 736           | 502           | 506           |
| China                                 | 1,319          | 2,147          | 3,109          | 4,951          | 5,890          | 1,597           | 712           | 607           | 836           | 954           | 1,176         | 1,132         | 1,302         | 1,341         | 1,283         | 1,419         | 1,667         | 1,521         | 1,597         |
| European Patent Office                | 62,244         | 65,641         | 65,480         | 68,957         | 76,938         | 20,009          | 16,203        | 16,154        | 16,798        | 16,325        | 17,605        | 16,553        | 17,186        | 17,613        | 17,850        | 19,294        | 20,054        | 19,740        | 20,009        |
| Finland                               |                | 217            | 596            | 707            | 625            | 170             | 190           | 121           | 161           | 124           | 184           | 162           | 168           | 193           | 139           | 202           | 144           | 140           | 170           |
| Japan                                 | 17,947         | 22,810         | 25,017         | 26,057         | 26,523         | 6,945           | 5,483         | 6,942         | 6,005         | 6,587         | 5,951         | 7,470         | 6,215         | 6,421         | 5,932         | 7,226         | 6,772         | 6,593         | 6,945         |
| Nordic Patent Institute               |                |                |                |                | 67             | 27              |               |               |               |               |               |               |               |               | 25            | 24            | 18            | 27            |               |
| Republic of Korea                     | 2,931          | 3,657          | 4,765          | 8,345          | 13,004         | 4,589           | 1,204         | 1,156         | 1,003         | 1,402         | 2,118         | 1,969         | 2,078         | 2,180         | 2,819         | 3,572         | 3,250         | 3,363         | 4,589         |
| Russian Federation                    | 609            | 592            | 693            | 757            | 797            | 148             | 138           | 177           | 174           | 204           | 158           | 201           | 190           | 208           | 161           | 205           | 195           | 236           | 148           |
| Spain                                 | 715            | 855            | 857            | 1,075          | 1,183          | 274             | 230           | 215           | 191           | 221           | 292           | 298           | 247           | 238           | 285           | 304           | 241           | 353           | 274           |
| Sweden                                | 3,115          | 3,411          | 2,960          | 2,982          | 2,828          | 653             | 754           | 796           | 593           | 817           | 798           | 807           | 668           | 709           | 792           | 825           | 660           | 551           | 653           |
| United States of America              | 18,616         | 22,955         | 23,972         | 28,633         | 50,836         | 4,395           | 5,006         | 5,209         | 7,511         | 6,246         | 6,313         | 5,093         | 9,117         | 8,110         | 9,163         | 12,868        | 19,925        | 8,880         | 4,395         |
| <b>Total</b>                          | <b>110,746</b> | <b>127,836</b> | <b>133,012</b> | <b>148,501</b> | <b>184,881</b> | <b>40,136</b>   | <b>31,272</b> | <b>32,737</b> | <b>34,742</b> | <b>34,261</b> | <b>36,115</b> | <b>35,113</b> | <b>38,732</b> | <b>38,541</b> | <b>39,897</b> | <b>47,598</b> | <b>54,582</b> | <b>42,804</b> | <b>40,136</b> |

#### Distribution of ISR established by ISA (%)

| ISA_Name / ISA_Code<br>Year / Quarter | 2004 | 2005 | 2006 | 2007 | 2008 | 2009<br>to date | 2006<br>1 | 2006<br>2 | 2006<br>3 | 2006<br>4 | 2007<br>1 | 2007<br>2 | 2007<br>3 | 2007<br>4 | 2008<br>1 | 2008<br>2 | 2008<br>3 | 2008<br>4 | 2009<br>1 |
|---------------------------------------|------|------|------|------|------|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Australia                             | 2.1  | 2.1  | 2.0  | 1.9  | 1.5  | 1.3             | 2.1       | 1.8       | 2.0       | 1.9       | 2.0       | 1.7       | 1.8       | 2.0       | 1.5       | 1.6       | 1.3       | 1.6       | 1.3       |
| Austria                               | 0.7  | 0.6  | 0.6  | 0.6  | 0.5  | 0.7             | 0.6       | 0.9       | 0.5       | 0.5       | 0.8       | 0.7       | 0.5       | 0.6       | 0.6       | 0.6       | 0.4       | 0.5       | 0.7       |
| Canada                                | 0.1  | 1.7  | 1.6  | 1.6  | 1.3  | 1.3             | 1.6       | 1.5       | 1.6       | 1.6       | 1.4       | 1.6       | 1.7       | 1.4       | 1.5       | 1.3       | 1.3       | 1.2       | 1.3       |
| China                                 | 1.2  | 1.7  | 2.3  | 3.3  | 3.2  | 4.0             | 2.3       | 1.9       | 2.4       | 2.8       | 3.3       | 3.2       | 3.4       | 3.5       | 3.2       | 3.0       | 3.1       | 3.6       | 4.0       |
| European Patent Office                | 56.2 | 51.3 | 49.2 | 46.4 | 41.6 | 49.9            | 51.8      | 49.3      | 48.4      | 47.6      | 48.7      | 47.1      | 44.4      | 45.7      | 44.7      | 40.5      | 36.7      | 46.1      | 49.9      |
| Finland                               |      | 0.2  | 0.4  | 0.5  | 0.3  | 0.4             | 0.6       | 0.4       | 0.5       | 0.4       | 0.5       | 0.5       | 0.4       | 0.5       | 0.3       | 0.4       | 0.3       | 0.3       | 0.4       |
| Japan                                 | 16.2 | 17.8 | 18.8 | 17.5 | 14.3 | 17.3            | 17.5      | 21.2      | 17.3      | 19.2      | 16.5      | 21.3      | 16.0      | 16.7      | 14.9      | 15.2      | 12.4      | 15.4      | 17.3      |
| Nordic Patent Institute               |      |      |      |      | 0.0  | 0.1             |           |           |           |           |           |           |           |           |           | 0.1       | 0.0       | 0.0       | 0.1       |
| Republic of Korea                     | 2.6  | 2.9  | 3.6  | 5.6  | 7.0  | 11.4            | 3.9       | 3.5       | 2.9       | 4.1       | 5.9       | 5.6       | 5.4       | 5.7       | 7.1       | 7.5       | 6.0       | 7.9       | 11.4      |
| Russian Federation                    | 0.5  | 0.5  | 0.5  | 0.5  | 0.4  | 0.4             | 0.4       | 0.5       | 0.5       | 0.6       | 0.4       | 0.6       | 0.5       | 0.5       | 0.4       | 0.4       | 0.4       | 0.6       | 0.4       |
| Spain                                 | 0.6  | 0.7  | 0.6  | 0.7  | 0.6  | 0.7             | 0.7       | 0.7       | 0.5       | 0.6       | 0.8       | 0.8       | 0.6       | 0.6       | 0.7       | 0.6       | 0.4       | 0.8       | 0.7       |
| Sweden                                | 2.8  | 2.7  | 2.2  | 2.0  | 1.5  | 1.6             | 2.4       | 2.4       | 1.7       | 2.4       | 2.2       | 2.3       | 1.7       | 1.8       | 2.0       | 1.7       | 1.2       | 1.3       | 1.6       |
| United States of America              | 16.8 | 18.0 | 18.0 | 19.3 | 27.5 | 11.0            | 16.0      | 15.9      | 21.6      | 18.2      | 17.5      | 14.5      | 23.5      |           |           |           |           |           |           |

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